

Item No	Quantity	Rate	Amount
<b><u>BILL No 1</u></b>			
<b><u>PRELIMINARIES</u></b>			
<b><u>PREAMBLE FOR TRADES</u></b>			
<p>The Model Preambles for Trades as published by the Association of South African Quantity Surveyor shall be deemed to be incorporated in these bills of quantities and no claim arising from brevity of description of items fully described in the said Model Preambles for Trades will be entertained.</p>			
<p>Supplementary preambles to the Model Preambles covering clauses of general nature, clauses pertaining to specific materials and amendments to clauses in the Model Preambles are incorporated in these bills of quantities to satisfy the requirements of this project.</p>			
<p>The contractor's prices or all items throughout these bills of quantities must take into account of and include for all the obligations, requirements and specifications given in the Model Preambles and in any supplementary preambles</p>			
<b><u>NOTES TO PRELIMINARIES</u></b>			
1.0 These Preliminaries comprise the following:			
1.1 <b>Part A</b> - The JBCC Series 2000 Series Edition 5.0 Code 2101 July 2007 Principal Building Agreement as amended by these bills of quantities			
1.2 <b>Part B</b> - The ASAQs Preliminaries November 2007 as amended by these bills of quantities			
1.3 <b>Part C</b> - Additional Preliminaries to meet the particular circumstances of this project			
2.0 Where references are made to clauses in any of the above sections, they will be identified by the prefix A, B or C followed by the clause number.			
3.0 Tenderers are referred to the above-mentioned documents for the full intent and meaning of			
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each clause thereof. These clauses are hereinafter referred to by clause number and heading only. Where standard clauses or alternatives are not applicable to this contract, such modifications / corrections or additions as are necessary, are given as far as possible under each relevant clause heading. Additional preliminary clauses are contained in Part C hereof.

- 4.0 No claim whatsoever shall be entertained in respect of errors or omissions in pricing due to brevity of descriptions of items in these bills of quantities which are fully described when read in conjunction with the relevant clauses of the said Preliminaries and Preambles.
- 5.0 The tenderer shall allow opposite each of the clauses whatever costs and charges he may consider necessary for the carrying out, complying with and due observance of the provisions, conditions and requirements set out herein.
- Only priced items will be considered in respect of any adjustment of this section. Any items left unpriced will be understood to be provided free of charge and no claim for any extras arising out of the tenderer's omission to price any item will be entertained.
- 6.0 Where modifications or amendments as described are made, such modifications and/or amendments shall supersede any conflicting provision in the relevant clauses of the Principal Building Agreement or the Preliminaries and the tenderer shall make due allowance for whatever costs and charges he may consider necessary for the carrying out and observance of the provisions of the clauses as modified and/or amended.
- 7.0 Any item not applicable to this contract is marked N/A.

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**PRICING**

If option A as set out in clause B10.3.1 hereinafter is to be used for the adjustment of the preliminaries each item priced is to be allocated to one or more of the three categories "F", "T" or "V" as the case may be below such item, where:

- F · An amount which shall not be varied
- V · An amount which shall be varied in proportion to the contract value as compared with the contract sum
- T · An amount which shall be varied in proportion to the construction period as compared to the initial construction period excluding revisions to the construction period for which the contractor is not entitled to adjustment of the contract value in terms of the agreement

**PART A - PRINCIPAL BUILDING AGREEMENT**

**DEFINITIONS**

1 CLAUSE 1.0 : DEFINITIONS AND INTERPRETATION

Fixed .R .....; Time .R.....; Value .R.....

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**OBJECTIVE AND PREPARATION**

2 CLAUSE 2.0 : OFFER, ACCEPTANCE AND PERFORMANCE OBLIGATIONS

Fixed .R .....; Time .R.....; Value .R.....

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**PREPARATION**

3 CLAUSE 3.0 : DOCUMENTS

Fixed .R .....; Time .R.....; Value .R.....

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Clause 3.1. is deleted.

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Clause 3.5 : Delete the word "not" in the 3rd line. The sentence should read: "Formal signatories are required to render this agreement binding"

4 **CLAUSE 4.0 : DESIGN RESPONSIBILITY**

Fixed .R .....; Time .R.....; Value .R.....

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Clause 4.1 is amended by the addition of the following :

Notwithstanding the provisions of Clause 4.1 hereof, where the contractor undertakes the design responsibility of any aspect of the works, he shall hereof, indemnify and hold free the employer and his agents from responsibility for any claim or proceeding whatsoever due to fault in the design, detailing, calculations, etc., to the extent undertaken by the contractor. In such instance and with regard to those aspects of work as listed on, the provisions of Clause 4.0 shall not apply.

In respect of design responsibility undertaken by any nominated or selected subcontractor, such subcontractor shall similarly, hereof, indemnify and hold free the employer, his agents and the contractor from responsibility for any claim or proceeding whatsoever due to fault in the design, detailing, calculations, etc., to the extent undertaken by the subcontractor

5 **CLAUSE 5.0 : EMPLOYER'S AGENTS**

Fixed .R .....; Time .R.....; Value .R.....

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Clause 5.3.2 is amended by the addition of the following to the end thereof :

The authority of the principal agent to issue contract instructions or to perform duties as may be required for the relevant aspects of the works is delegated to the other agents as follows :-

1. ARCHITECT

1.1 Duties :

The architect is responsible for the architectural design, functional design and quality inspection of the **works**

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<p>1.2 <b>Contract instructions :</b></p> <p>1.2.1 Rectification of discrepancies, errors in description or quantity or omission of items in the <b>agreement</b> other than in the <b>JBCC</b> Principal Building Agreement</p> <p>1.2.2 Alteration to design, standards or quantity of the <b>works</b> provided that such <b>contract instructions</b> shall not substantially change the scope of the <b>works</b></p> <p>1.2.3 The <b>site</b></p> <p>1.2.4 Compliance with the <b>law</b>, regulations and bylaws</p> <p>1.2.5 Provision and testing of samples of <b>materials and goods</b> and/or of finishes and assemblies of elements of the <b>works</b></p> <p>1.2.6 Opening up of work for inspection, removal or re-execution</p> <p>1.2.7 Removal or re-execution of work</p> <p>1.2.8 Removal or substitution of any <b>materials and goods</b></p> <p>1.2.9 Protection of the <b>works</b></p> <p>1.2.10 Making good physical loss and repairing damage to the <b>works</b></p> <p>1.2.11 Rectification of <b>defects</b></p> <p>1.2.12 A <b>list for practical completion</b> specifying outstanding or defective work to be rectified to achieve <b>practical completion</b>, a <b>list for completion</b> and a <b>list for final completion</b> specifying outstanding or defective work to be rectified to achieve <b>final completion</b></p>	
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1.2.13 Expenditure of <b>budgetary allowances, prime cost amounts</b> and <b>provisional sums</b>	
1.2.14 Appointment of a <b>subcontractor</b>	
1.2.15 Work by <b>direct contractors</b>	
1.2.16 On suspension or termination, protection of the <b>works</b> , removal of <b>construction equipment</b> and surplus <b>materials and goods</b>	
2. <u>Quantity surveyor</u>	
2.1 Duties :	
The quantity surveyor is responsible for all measurements, valuations, financial assessments and all other quantity surveying and cost control functions of the <b>works</b>	
2.2 <b>Contract instructions</b> :	
2.2.1 No <b>contract instructions</b> are delegated to the quantity surveyor	
3. <u>Civil and structural engineer</u>	
<i>Note that the contract instructions hereinafter are selected from those listed in clause 17.1 of the JBCC PBA</i>	
3.1 Duties :	
The civil and structural engineer is responsible for all aspects of civil and structural engineering design and quality inspection of the <b>works</b>	
3.2 <b>Contract instructions</b> :	
3.2.1 Rectification of discrepancies, errors in description or quantity or omission of items in the <b>agreement</b> other than in the <b>JBCC</b> Principal Building Agreement	
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3.2.2 Alteration to design, standards or quantity of the <b>works</b> provided that such <b>contract instructions</b> shall not substantially change the scope of the <b>works</b>	
3.2.3 The <b>site</b>	
3.2.4 Compliance with the <b>law</b> , regulations and bylaws	
3.2.5 Provision and testing of samples of <b>materials and goods</b> and/or of finishes and assemblies of elements of the <b>works</b>	
3.2.6 Opening up of work for inspection, removal or re-execution	
3.2.7 Removal or re-execution of work	
3.2.8 Removal or substitution of any <b>materials and goods</b>	
3.2.9 Protection of the <b>works</b>	
3.2.10 Making good physical loss and repairing damage to the <b>works</b>	
3.2.11 Rectification of <b>defects</b>	
3.2.12 A <b>list for practical completion</b> specifying outstanding or defective work to be rectified to achieve <b>practical completion</b> , a <b>list for completion</b> and a <b>list for final completion</b> specifying outstanding or defective work to be rectified to achieve <b>final completion N/A</b>	
4. <u>Mechanical engineer</u>	
4.2 <b>Contract instructions</b> :	
4.2.1 Rectification of discrepancies, errors in description or quantity or omission of items in the <b>agreement</b> other than in the <b>JBCC</b> Principal Building Agreement	
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4.2.2 Alteration to design, standards or quantity of the <b>works</b> provided that such <b>contract instructions</b> shall not substantially change the scope of the <b>works</b>	
4.2.3 Compliance with the <b>law</b> , regulations and by laws	
4.2.4 Provision and testing of samples of <b>materials and goods</b> and/or of finishes and assemblies of elements of the <b>works</b>	
4.2.5 Opening up of work for inspection, removal or re-execution	
4.2.6 Removal or re-execution of work	
4.2.7 Removal or substitution of any <b>materials and goods</b>	
4.2.8 Protection of the <b>works</b>	
4.2.9 Making good physical loss and repairing damage to the <b>works</b>	
4.2.10 Rectification of <b>defects</b>	
4.2.11 A <b>list for practical completion</b> specifying outstanding or defective work to be rectified to achieve <b>practical completion</b> , a <b>list for completion</b> and a <b>list for final completion</b> specifying outstanding or defective work to be rectified to achieve <b>final completion</b>	
4.2.12 Expenditure of <b>budgetary allowances, prime cost amounts</b> and <b>provisional sums</b>	
5. <u>Electrical engineer</u>	
5.1 Duties :	
The electrical engineer is responsible for all aspects of electrical engineering design and quality inspection of the <b>works</b>	
5.2 <b>Contract instructions</b> :	
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5.2.1 Rectification of discrepancies, errors in description or quantity or omission of items in the <b>agreement</b> other than in the <b>JBCC</b> Principal Building Agreement			
5.2.2 Alteration to design, standards or quantity of the <b>works</b> provided that such <b>contract instructions</b> shall not substantially change the scope of the <b>works</b>			
5.2.3 Compliance with the <b>law</b> , regulations and by laws			
5.2.4 Provision and testing of samples of <b>materials and goods</b> and/or of finishes and assemblies of elements of the <b>works</b>			
5.2.5 Opening up of work for inspection, removal or re-execution			
5.2.6 Removal or re-execution of work			
5.2.7 Removal or substitution of any <b>materials and goods</b>			
5.2.8 Protection of the <b>works</b>			
5.2.9 Making good physical loss and repairing damage to the <b>works</b>			
5.2.10 Rectification of <b>defects</b>			
5.2.11 A <b>list for practical completion</b> specifying outstanding or defective work to be rectified to achieve <b>practical completion</b> , a <b>list for completion</b> and a <b>list for final completion</b> specifying outstanding or defective work to be rectified to achieve <b>final completion</b>			
5.2.12 Expenditure of <b>budgetary allowances, prime cost amounts</b> and <b>provisional sums</b>			
6. <u>Wet services engineer</u>			
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<p>6.1 Duties :</p> <p>The wet services engineer is responsible for all aspects of wet services engineering design and quality inspection of the <b>works</b></p> <p>6.2 <b>Contract instructions</b> :</p> <p>6.2.1 Rectification of discrepancies, errors in description or quantity or omission of items in the <b>agreement</b> other than in the <b>JBCC</b> Principal Building Agreement</p> <p>6.2.2 Alteration to design, standards or quantity of the <b>works</b> provided that such <b>contract instructions</b> shall not substantially change the scope of the <b>works</b></p> <p>6.2.3 Compliance with the <b>law</b>, regulations and by laws</p> <p>6.2.4 Provision and testing of samples of <b>materials and goods</b> and/or of finishes and assemblies of elements of the <b>works</b></p> <p>6.2.5 Opening up of work for inspection, removal or re-execution</p> <p>6.2.6 Removal or re-execution of work</p> <p>6.2.7 Removal or substitution of any <b>materials and goods</b></p> <p>6.2.8 Protection of the <b>works</b></p> <p>6.2.9 Making good physical loss and repairing damage to the <b>works</b></p> <p>6.2.10 Rectification of <b>defects</b></p> <p>6.2.11 A <b>list for practical completion</b> specifying outstanding or defective work to be rectified to achieve <b>practical completion</b>, a <b>list for completion</b> and a <b>list for final completion</b> specifying outstanding or defective work to be rectified to achieve <b>final completion</b></p>	
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<p>6.2.12 Expenditure of <b>budgetary allowances, prime cost amounts</b> and <b>provisional sums</b> N/A</p>			
<p>7. <u>Fire consultant</u></p>			
<p><i>Note that the contract instructions hereinafter are selected from those listed in clause 17.1 of the JBCC PBA</i></p>			
<p>7.1 Duties [6.2] :</p>			
<p>The fire consultant is responsible for all aspects of rational fire design and quality inspection of the <b>works</b></p>			
<p>7.2 <b>Contract instructions</b> [6.2; 17.1] :</p>			
<p>7.2.1 Rectification of discrepancies, errors in description or quantity or omission of items in the <b>agreement</b> other than in the <b>JBCC</b> Principal Building Agreement</p>			
<p>7.2.2 Alteration to design, standards or quantity of the <b>works</b> provided that such <b>contract instructions</b> shall not substantially change the scope of the <b>works</b></p>			
<p>7.2.3 Compliance with the <b>law</b>, regulations and by laws [2.1]</p>			
<p>7.2.4 Provision and testing of samples of <b>materials and goods</b> and/or of finishes and assemblies of elements of the <b>works</b></p>			
<p>7.2.5 Opening up of work for inspection, removal or re-execution [23.2.4; 26.4.2]</p>			
<p>7.2.6 Removal or re-execution of work</p>			
<p>7.2.7 Removal or substitution of any <b>materials and goods</b></p>			
<p>7.2.8 Protection of the <b>works</b></p>			
<p>7.2.9 Making good physical loss and repairing damage to the <b>works</b></p>			
<p>7.2.10 Rectification of <b>defects</b></p>			
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7.2.11 A **list for practical completion** specifying outstanding or defective work to be rectified to achieve **practical completion**, a **list for completion** and a **list for final completion** specifying outstanding or defective work to be rectified to achieve **final completion**

7.2.12 Expenditure of **budgetary allowances, prime cost amounts** and **provisional sums**

8. Health and safety consultant

8.1 Duties :

The health and safety consultant is responsible for all aspects of health and safety of the **works**. Without derogating from the generality thereof, the health and safety consultant will perform the following specific functions and duties in respect of the health and safety aspects of the **works**. He shall:

8.1.1 Act as the **employer's agent** in terms of the Construction Regulations issued in terms of the Occupational Health and Safety Act as amended

8.1.2 Prepare and update the health and safety specification for the **works**

8.1.3 Agree with the **contractor** the health and safety plan for the **works**

8.1.4 Carry out regular audits to ensure adherence to the safety plan and compliance with the act and regulations

8.1.5 Stop the execution of the **works** where the agreed specification or plan is not adhered to

6 CLAUSE 6.0 : CONTRACTOR'S SITE REPRESENTATIVE

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Clause 6.0 is amended by the addition of the following :

The names and CVs of the contractor's proposed management team shall be submitted to the principal agent prior to commencement on site and, after the principal agent's agreement on the composition and competence thereof has been obtained, no changes shall be made nor shall any member of the said team be removed from the project while remaining in the employ of the contractor, without the principal agent's prior written approval

7 **CLAUSE 7.0 : COMPLIANCE WITH LAWS AND REGULATIONS**

Fixed .R .....; Time .R.....; Value .R.....

Item

Clause 7.0 is amended by the addition of the following clauses :

7.3 The employer reserves the right to pay direct (i.e. not through the contractor) for all or any permanent connections to local or other authority services, for which provisional amounts have been included within the selected sub-contract bill / section hereof. In the event of the employer paying direct for these charges, the contractor will not be entitled to a mark-up in terms of Clause 32.4. All such provisional amounts included in the contract sum will be omitted.

7.4 Health and Safety Specification - the contractor shall comply with the requirements of the Occupational Health & Safety Act of the time and the Construction Regulations of the time. The employer will appoint an independent safety consultant who will, in consultation with the contractor, draw up and agree the construction phase health and safety plan / specification. This health and safety specification will form an integral part of the principal contract document and will be copied to all subcontractors for inclusion, as modified, within their respective scope of works.

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8	<p>CLAUSE 8.0 : WORKS RISK</p> <p>Fixed .R .....; Time .R.....; Value .R.....</p> <p>Clause 8.5 : Add the following wording at the end of the sentence: ".only if such making good of physical loss and repairs have been approved in writing by the employer</p>	Item
9	<p>CLAUSE 9.0 : INDEMNITIES</p> <p>Fixed .R .....; Time .R.....; Value .R.....</p> <p>Clause 9.2.2 is deleted</p>	Item
10	<p>CLAUSE 10.0 : GENERAL INSURANCES</p> <p>Fixed .R .....; Time .R.....; Value .R.....</p>	Item
11	<p>CLAUSE 11.0 : SPECIAL INSURANCES</p> <p>Fixed .R .....; Time .R.....; Value .R.....</p>	Item
12	<p>CLAUSE 12.0 : EFFECTING INSURANCES</p> <p>Fixed .R .....; Time .R.....; Value .R.....</p> <p>Where called upon to do so, the party/ies responsible for effecting the various insurances, shall complete the relevant "Declaration of Insurance"</p> <p>Clause 12.2 is deleted and replaced by the following:</p> <p>The contractor responsible for effecting the insurances shall make available to the employer, before commencement of the construction period, documentary evidence that insurances have been effected. A copy of the insurance policies shall be provided to the other party within thirty (7) calender days of the commencement of the construction period. Approval by the other party shall be deemed unless a reasonable objection is lodged within fourteen (14) calender days of receipt of such policies. Where required, the contractor shall provide evidence of renewal to the other party before the expiry of the current period of insurance</p> <p>Clause 12.3 : Delete first and last sentence</p>	Item
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	Clause 12.5 is deleted	
13	<p>CLAUSE 13.0 : ASSIGNMENT</p> <p>Fixed .R .....; Time .R.....; Value .R.....</p>	Item
14	<p>CLAUSE 14.0 : SECURITY</p> <p>Fixed R .....; Time R.....; Value R.....</p> <p>Clause 14.0 is amended by the addition of the following clause :</p> <p>14.9 In the event that the value of the works (excluding adjustments in terms of the contract price adjustment provisions) were to increase during the course of the contract by an amount of 15% or more of the contract sum, upon written request from the principal agent, the contractor shall immediately arrange to have the construction guarantee “guaranteed sum” adjusted to reflect the increased contract value. The cost of obtaining the adjusted guarantee, if any, will be dealt with in terms of Clause 32.0.</p> <p>Clause 14.8 is deleted</p>	Item
	<b><u>EXECUTION</u></b>	
15	<p>CLAUSE 15.0 : PREPARATION FOR AND EXECUTION OF THE WORKS</p> <p>Fixed .R .....; Time .R.....; Value .R.....</p> <p>Clause 15.6 is deleted in its entirety and replaced with the following:-</p> <p>15.6.1 The contractor shall submit with this tender the method statement on how he/she intends to execute the work on site in relation to the work programme. The method statement shall outline the construction, labour and plant resources methods proposed to be used in execution of the works. Any acceptance, approval made by the principal agent shall not relieve the</p>	Item
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contractor of his/her sole responsibility to adopt the methods of construction.

Immediately on award of the contract and prior to commencement on site, the contractor, in conjunction with the principal agent, shall agree the working programme covering the construction period in accordance with the conditions of this Clause 15.6.

The principal agent shall have the right to modify such programme to accommodate changes necessary, in his opinion, for co-ordinating the project as a whole. Any cost implications relating to such modification, shall be dealt with in accordance with the provisions of the agreement.

15.6.2 This programme shall be drawn up in accordance with the dates given herein, for possession, sectional completion and practical completion and shall be in sufficient and approved detail to ensure control over the work.

15.5.3 The contractor shall be responsible at all times for maintaining the accuracy, validity and reasonableness of the programme, and the implementation thereof.

15.6.4 The programme shall be compiled based on the critical path method of programming and the critical activities are to be clearly highlighted.

15.6.5 Documentation will not be available in complete detail at the commencement stage. However the contractor, in consultation with the principal agent, shall plan the works on provisional information, to an agreed level of detail relating to the level of detailed information available and with sufficient scope to include future detail, without disrupting the basic logic as initially agreed.

The quantities contained in this document are provisional and shall be utilized as a guide only for the drawing up of the programme.

Where assumptions are made in regard to programming aspects, such assumptions shall be agreed upon by the contractor and the

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principal agent, and suitably recorded in the programme.

- 15.6.6 Should circumstances change to the extent where the contractor is of the opinion that changes to the programme are required, then the contractor shall submit a written request to the principal agent for such changes, clearly identifying the reasons for requiring such change. The contractor and principal agent shall thereafter agree upon such changes, if any.

Should the principal agent be of the opinion that the programme requires revisions, and notwithstanding the fact that a request for such revision has not been received from the contractor, the principal agent shall be entitled to instruct the contractor to revise the programme accordingly, unless the Contractor can submit reasonable justification for not doing so.

Any acceleration and/or special measures sanctioned by the principal agent together with associated effects shall be incorporated in a revision to the programme.

- 15.6.7 The contractor and the principal agent shall, at regular intervals agree the state of progress of the works relative to the latest agreed revision of the programme. Such agreement shall include the recording of actual commencement and completion dates for each activity and shall constitute the official record of the progress at such point in time.

- 15.6.8 In addition to and based on the programme systems and format dictated above, the contractor shall revise detailed working programmes. These shall be drawn on a regular basis, to the satisfaction of the principal agent.

Such working programmes shall at all times relate to the constraints of the current programme.

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16	<p>CLAUSE 16.0 : SITE AND ACCESS</p> <p>Fixed .....; Time .R .....; Value .R.....</p> <p>16.1. SITE OFFICE AND NOTICE BOARDS</p> <p>The contractor shall provide his/her own site office, storage, laydown area, the position to be pointed out by the Principal Agent suitable facilities in which the material could be stored on site</p> <p>In addition, the contractor shall be informed of any limitations or restrictions on working space, any restrictions imposed by existing buildings, any restrictions imposed by any authorities and any limitations on the availability of water, power and sewerage facilities.</p> <p>Access to the works shall be strictly confined to that permitted by the principal agent. The contractor shall be responsible for maintaining such access and reinstating same upon completion.</p> <p>The Contractor shall allow in his tender price all temporary road signs, temporary hoarding and precaution to control traffic flow during the entire contract period.</p> <p>No claims for extras arising from the contractor having failed to comply with this clause will be entertained.</p>	Item
17	<p>CLAUSE 17.0 : CONTRACT INSTRUCTIONS</p> <p>Fixed .R .....; Time .R.....; Value .R.....</p> <p>Clause 17.0 is amended as follows:</p> <p>(i) by the addition of the following clause :</p> <p>17.1.21 Acceleration/Special Measures after due consultation with the Contractor</p> <p>17.1.22 Contractor's resources, organisation and management of the contract, after due consultation with the Contractor.</p>	Item
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17.6 Incorrect work due to the default of the contractor shall be removed and made good at the Contractor's cost. Should any such work be accepted by the Principal Agent and should this work involve revision to other work or any other remedial work, then such work, including related professional fees, shall be to the cost of the Contractor. Professional fees or other authorised charges in this case shall be payable by the Employer who may deduct same from amounts due or to become due to the Contractor.

Inspection of the works by the Principal Agent and other agents is intended as a means of checking the interpretation of work done and providing clarification and further information where required during the progress of the works. Such inspection shall not in any way relieve the Contractor of his responsibility for ensuring that the work is carried out satisfactorily in all respects, in accordance with the latest agreed programme and in accordance with the Agreement.

Contract instructions shall be recorded in a contract instruction book which must be provided by the Contractor, and kept on site. The book shall be carbon triplicate, numbered consecutively.

Contract instructions to the Contractor and his subcontractors will be issued only by the Principal Agent or his authorised agent and must be issued via the Contractor. Copies of all contract instructions issued shall be submitted to the Principal Agent and the quantity surveyor within 48 hours of issue by the authorised agent issuing the Contract instructions

All Contract Instruction attracting cost to the project shall be approved and agreed upon with the Quantity Surveyor prior to execution within 48hrs of its prevelance

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18	<p>CLAUSE 18.0 : SETTING OUT OF THE WORKS</p> <p>Fixed .R.....; Time ..R .....; Value R.....</p>	Item
19	<p>CLAUSE 19.0 : TEMPORARY WORKS AND PLANT</p> <p>Fixed R..... ; Time ..R .....; Value R.....</p>	Item
20	<p>CLAUSE 20.0 : NOMINATED SUBCONTRACTORS</p> <p>Fixed .R .....; Time .R.....; Value .R.....</p>	Item
21	<p>CLAUSE 21.0 : SELECTED SUBCONTRACTORS</p> <p>Fixed .R .....; Time .R.....; Value .R.....</p>	Item
22	<p>CLAUSE 22.0 : EMPLOYER'S DIRECT CONTRACTORS</p> <p>Fixed .R .....; Time .R.....; Value .R.....</p> <p>Clause 22.0 is amended by the addition of the following clause :</p> <p>22.6 Refer to Clause C4 "Direct Contracts" for further details.</p>	Item
23	<p>CLAUSE 23.0 : CONTRACTOR'S DOMESTIC SUBCONTRACTORS</p> <p>Fixed .R .....; Time .R.....; Value .R.....</p> <p><b><u>COMPLETION</u></b></p>	Item
24	<p>CLAUSE 24.0 : PRACTICAL COMPLETION</p> <p>Fixed .R .....; Time .R.....; Value .R.....</p>	Item
<b>Carried Forward</b>		R
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<b>Brought Forward</b>		R
25	<p>CLAUSE 25.0 : WORKS COMPLETION</p> <p>Fixed .R .....; Time .R.....; Value .R.....</p>	Item
26	<p>CLAUSE 26.0 : FINAL COMPLETION</p> <p>Fixed .R .....; Time .R.....; Value .R.....</p>	Item
27	<p>CLAUSE 27.0 : LATENT DEFECTS LIABILITY PERIOD</p> <p>Fixed .R .....; Time .R.....; Value .R.....</p> <p>Clause 27.2.2 is deleted</p>	Item
28	<p>CLAUSE 28.0 : SECTIONAL COMPLETION</p> <p>Fixed .R .....; Time .R.....; Value .R.....</p>	Item
29	<p>CLAUSE 29.0 : REVISION OF DATE FOR PRACTICAL COMPLETION</p> <p>Fixed .R .....; Time .R.....; Value .R.....</p> <p>No claims for a revision of the date for practical completion due to time lost on account of inclement weather shall be considered for first ten (10) working days lost on this account in this contract.</p> <p>The actual number of working days lost due to inclement weather during the construction period shall be determined by the principal agent on a monthly basis.</p> <p>The Contractor shall allow in his programme 10(ten) working days float. No delay claims will be considered for the said days</p>	Item
30	<p>CLAUSE 30.0 : PENALTY FOR LATE OR NON-COMPLETION</p> <p>Fixed .R .....; Time .R.....; Value .R.....</p>	Item
<b>Carried Forward</b>		R
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**Brought Forward**

R

**PAYMENT**

31 CLAUSE 31.0 : INTERIM PAYMENT

Fixed .R .....; Time .R.....; Value .R.....

Item

Clause 31.0 is amended as follows :

- i) Clause 31.2 shall be amended by adding the following to the end of the first sentence "... as of the 20th day of the month, by no later than the 25th day of the month".
- ii) Clause 31.6.5 shall be amended as follows:  
No material stored off site will be certified for payments under this contract unless otherwise agreed in writing with the principal agent, in exchange with Advance Payment Guarantee, Short term Insurance cover, Transfer of ownership Cession and waiver of Hyphotec
- iii) Clause 31.9 shall be amended replacing the phrase "...seven (7) calendar days..." in the first sentence with the phrase "...thirty (30) calendar days...". The payment will be not later than 30 days after the date of invoicing

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R

Clause 31.9 is deleted and replaced with the following:

31.9.1 The employer shall pay the amount certified in an interim payment certificate by the last calendar day of the month, provided that the employer receives the interim payment certificate from the contractor on or before the fifth calendar day of the month for which the services are being rendered, failing which the invoices will be paid by the last calendar day of the following month

31.9.2 Should the 5th calendar day fall on a weekend or public holiday, documentation shall be submitted by the first working day subsequent to the 5th calendar day

31.9.3 Furthermore, the contractor shall ensure that a statement accompanies all interim payment certificates requested for payment

31.9.4 No payment will be effected if the employer is not in possession of a valid Tax Clearance Certificate issued by the South African Revenue Service

Clause 31.16.1 is deleted

32 **CLAUSE 32.0 : ADJUSTMENT TO THE CONTRACT VALUE**

Fixed .R .....; Time .R.....; Value .R.....

Item

Clause 32.0 is amended by the following:

Clause 32.2.4. is amended by the deletion of the words "but where the omission of such works varies the circumstances in which the remaining work is carried out, the value of the remaining work shall be determined by the method in terms of 32.2.2."

Clause 32.4 is deleted

Clause 32.6 : Delete "40"and replace with "20"

Clause 32.0 is amended by the addition of the following clauses:

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R

"32.16 The Employer shall also have the right by notice via the Principal Agent to the Contractor to omit any work covered by provisional amounts or prime cost items contained herein.

The Contractor shall not be entitled to claim for any loss of mark-up or discount resultant from the omission of any provisional amount, budgetary allowance or prime cost items.

32.17 The omission of work from the Agreement and the performance thereof either in terms of 32.16 and/or the performance of such work after the construction period in respect of the relevant portion of the work by direct contract by any person in terms of 32.16 shall not entitle the Contractor to any attendance, mark-up, compensation, consideration, loss or damage under this Agreement other than that contained in Clause 22.

No adjustment of the contract value for the 15% variance in change of scope of work, or in change of quantities in the final account stage will attract adjustment to Preliminaries in terms of Clause 3.2 of the JBCC Preliminaries

33 CLAUSE 33.0 : RECOVERY OF EXPENSE AND LOSS

Fixed .R .....; Time .R.....; Value .R.....

Item

Clause 33.0 is amended by the following :

Subclause 33.2 shall be amended by the insertion of the words "without prejudice to any other rights that he may have", between the words "Employer" and "may".

34 CLAUSE 34.0 : FINAL ACCOUNT AND FINAL PAYMENT

Fixed .R .....; Time .R.....; Value .R.....

Item

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Clause 34.0 is amended by the following:

Clause 34.10 is amended by the deletion of the words "seven (7)" in the second line and the substitution thereof with the words "thirty (30)".

The addition of the following:

"34.15 Interest referred to in subclauses above shall be compounded monthly in arrears

The employer shall not pay any interest on amounts payable to the contractor for ninety (90) working days after the date of issue of the certificate of works completion. The employer shall, however, pay interest to the contractor at the rate stipulated in clause 34.11 on any amounts payable to the contractor more than ninety (90) working days after the date of issue of the certificate of works completion but only for such period as the settlement of the final account is delayed by the non-performance of the principal agent or the employer or his agents. In evaluating non-performance for purposes of this clause a reasonable time shall be allowed by the principal agent to the employer or his agents to respond to any matter brought to his/their attention and which may affect the settlement of the final account

35 CLAUSE 35.0 : PAYMENT TO OTHER PARTIES

Fixed .R .....; Time .R.....; Value .R.....

Item

**TERMINATION**

36 CLAUSE 36.0 : TERMINATION BY EMPLOYER - CONTRACTOR'S DEFAULT

Fixed .R .....; Time .R.....; Value .R.....

Item

**Carried Forward**

R

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<b>Brought Forward</b>		R
	Clause 36.0 is amended by the following:  The addition of the following :  "36.1.3 Is placed under provisional or final liquidation or judicial management"	
37	<p>CLAUSE 37.0 : TERMINATION BY EMPLOYER - LOSS AND DAMAGE</p> <p>Fixed .R .....; Time .R.....; Value .R.....</p> <p>Clause 37.3.8 : Delete "[27.2.2]" and replace with "[27.2.1]"</p>	Item
38	<p>CLAUSE 38.0 : TERMINATION BY CONTRACTOR - EMPLOYER'S DEFAULT</p> <p>Fixed .R .....; Time .R.....; Value .R.....</p> <p>Clause 38.3.1 is deleted</p> <p>Clause 38.1.4 is deleted</p> <p>Clause 38.2 : Delete "(10)" and replace with "(14)"</p>	Item
39	<p>CLAUSE 39.0 : TERMINATION - CESSATION OF THE WORKS</p> <p>Fixed .R .....; Time .R.....; Value .R.....</p>	Item
	<b><u>DISPUTE</u></b>	
40	<p>CLAUSE 40.0 : SETTLEMENT OF DISPUTES</p> <p>Fixed .R .....; Time .R.....; Value .R.....</p>	Item
	<b><u>CONTRACT AGREEMENT</u></b>	
41	<p>CLAUSE 41.0 : POST TENDER PROVISIONS</p> <p>Fixed .R .....; Time .R.....; Value .R.....</p> <p>41.1 The preselected alternatives in the Contract Data Contractor - Employer indicate the preferences of the employer.</p>	Item
	<b>Carried Forward</b>	R
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**Brought Forward**

R

41.2 After consultation with the parties to the Agreement, the Contract data Contractor - Employer and such other pertinent documents as listed under item 41.4 will be updated and shall form part of this Agreement.

41.3 The dispute resolution body selected by the parties is : Chairman of the Association of Arbitrators

41.4 Further provisions and information agreed by the parties :  
The following documents shall form part of this agreement :

- as stated in the Table of Contents

42 **CLAUSE 42.0 : CONTRACTUAL AGREEMENT**

Fixed .R .....; Time .R.....; Value .R.....

Item

42.1 This agreement is the entire contract between the parties regarding the matters addressed herein. No representations, terms, conditions, or warranties not contained in this agreement shall be binding on the parties. No agreement or addendum varying, adding to, deleting or terminating this agreement including this clause shall be effective unless reduced to writing and signed by the parties.

42.2 Contracting parties

As stipulated in the Contract Data

**CONTRACT DATA : EMPLOYER TO CONTRACTOR**

**1.0 CONTRACTING AND OTHER PARTIES**

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R

1.1 **Employer:**

Public Investment Corporation Properties on  
behalf of Government Employees Pension Fund

Postal address:  
Private Bag X187  
PRETORIA  
0001

Tel: (012) 742-3400  
E-mail: leandre.philips@pic.gov.za

1.2 **Principal agent:**

GladAfrica  
Hertford Office Park  
Block G  
90 Bekker Road  
MIDRAND  
1686

Tel: (011) 312-2537  
E-mail: christiaanm@gladafrika.com

1.3 **Agent (1):**

ARCMUV Architects  
Agent's service: Architect  
First Floor Grosvenor Place  
235 Grosvenor Street  
HATFIELD

Tel: (012) 362-7350  
E-mail: mo@arc.co.za

1.4 **Agent (2):**

MMQSMace Consultancy (Pty) Ltd  
Agent's service: Quantity surveyor  
Waverley Office Park  
Building 1  
Forest Road  
BRAMLEY

Tel: (010) 430-0199  
E-mail: william.lehabe@mmqsmace.com  
Rivoningo.Chauke@mmqsmace.com

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1.5 **Agent (3):**

Nyeleti Consulting (Pty) Ltd  
Agent's service: Civil and structural engineer  
2 Lynnwood Galleries  
354 Rosemary Road  
LYNNWOOD

Tel: (012) 361-3629  
E-mail: [gminnaar@nyeleti.co.za](mailto:gminnaar@nyeleti.co.za)

1.6 **Agent (4):**

DTM (Pty) Ltd  
Agent's service: Mechanical engineers  
South Street  
CENTURION

Tel: (012) 663-3125  
E-mail: [candiceg@dtm-gauteng.co.za](mailto:candiceg@dtm-gauteng.co.za)

1.7 **Agent (5):**

WSP Group Africa (Pty) Ltd  
Agent's service: Electrical and fire engineers  
Building C  
Knightsbridge  
33 Sloane Street  
BRYANSTON

Tel: (011) 300-60001  
E-mail: [Francis.Wiggill@wsp.com](mailto:Francis.Wiggill@wsp.com) (Electrical)  
[Simon.Kemsley@wsp.com](mailto:Simon.Kemsley@wsp.com) (Fire)

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1.8 **Agent (6):**

Africa Safety Consultants & Services (Pty) Ltd  
Agent's service: Occupational Health and  
Safety Consultants (OHS)  
10 Graskop Street (Pty) Ltd  
Bardene  
BOKSBURG

Tel: (083) 266-9033

E-mail: lingesh@africansafetyconsultants.co.za

1.10 Interest of principal agent or other agents in the  
project  
[5.5]

**No**

**2.0 CONTRACT AND SITE INFORMATION**

2.1 The law applicable to this agreement shall be  
that of  
[1.7]

**Republic of South Africa**

2.2 Works identification  
[1.1]

Bulk earthworks, roads, stormwater, sewer,  
water reticulation for Ga-Rankuwa City

2.3 Site description

Erf 10203 and Erf 9114  
GA-RANKUWA EXT 5  
GAUTENG PROVINCE

2.4 Possession of the site is to be given on: Refer  
to "notes to tenderers".  
[15.2.1]

**Carried Forward**

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<b>Brought Forward</b>		R
2.5	<p>Period for the commencement of the works after the contractor takes possession of the site <b>immediately, subject to agreement with the principal agent</b> [15.3]</p>	
2.6	<p>Completion of the works in sections is required [15.4, 28.0]</p> <p style="text-align: right;"><b>Yes</b></p>	
2.7	<p>Waiver of the contractor's lien or right of continuing possession is required [3.3, 31.16.2]</p> <p style="text-align: right;"><b>Yes</b></p>	
2.8	<p>Defined restrictions to the site area. Where "yes" the specific requirements are described below [16.1]</p> <p style="text-align: right;"><b>Yes</b></p> <p>The contractor will be restricted to occupy only that portion of the site as indicated on the architect's / engineer's drawing and he shall on no account be allowed to extend his operations beyond the defined areas without the written approval of the principal agent.</p> <p>Within the defined restrictions and constraints, the contractor will be responsible for the location of his site establishment. Any required relocation thereof to meet the requirements of the programme / constraints of the site, will be for the contractor's account. Access to the site for all construction vehicles will be restricted to entry and exit points to be agreed with the principal agent</p>	
2.9	<p>Geotechnical investigation of the site has been undertaken [16.4]</p> <p style="text-align: right;"><b>Yes</b></p> <p>If Yes : See report forming part of this tender documentation</p>	
<b>Carried Forward</b>		R
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**Brought Forward**

R

2.10 Existing premises will be occupied. Where "yes" the specific requirements are described below [16.4]

**Yes**

If Yes

The contractor acknowledges that he understands that the shopping centre will continue to operate during the construction contract and that all works are to be carried out in such a manner as to least interfere with the operations and trading of the buildings.

It shall be the explicit responsibility of the contractor to maintain reasonably unrestricted vehicular access to the parking areas. In doing so, the contractor is to ensure that all existing escapes are maintained in a safe working condition, kept safe and clear of all debris.

It is also the responsibility of the contractor to arrange his operations on site in such a manner as to cause the least disruption to the tenants located in the buildings. It is envisaged that such actions would include programming and interfacing tenant / customers affected works in consultation with the employer's tenant co-ordinator, designing and installing suitable temporary screens and arranging offensive building works over times which do not conflict with the normal hours of the shopping centre. Demolition works shall preferably take place after hours and over weekends, subject to the local authority regulations.

Prior to the award of the contract and following a detailed review of the contractor's proposed method statement for the works, the contractor shall provide the Project Manager with a plan indicating his proposed layout of plant and establishment on site, delivery routes, workmen's access, public access to and into the existing building, etc.

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2.11	Provision of temporary services is required. Where "yes" the specific requirements are detailed in the Preliminaries [16.7]	
<b>No</b>		
43	2.12 Protection of existing trees and shrubs is required. Where "yes" the specific requirements are described below [16.8]	N/A
44	2.13 Notice board  The <b>contractor</b> shall erect in a position approved by the <b>principal agent</b> , maintain and remove on <b>practical completion</b> a notice board recommended by the South African Institute of Architects and as approved by the <b>principal agent</b> listing the names and logos of the <b>employer</b> , the <b>contractor</b> and the professional consultants. No subcontractor or supplier notice boards may be erected unless permission is granted by the <b>principal agent</b> for such notice boards to be erected	Item
45	2.14 <b>Office accommodation</b>  The <b>contractor</b> shall provide, maintain and remove on <b>practical completion</b> air conditioned office accommodation with suitable tables and chairs for meetings to be held on the <b>site</b> . Such offices shall be kept clean and fit for use at all times	Item
<b>3.0 INSURANCES</b>		
3.1	Contract works insurance to be effected by <b>the employer</b> [10.1.1, 12.6]  For the sum of ( <i>amount</i> ) <b>Contract Sum + 20%</b>  With a deductible of <b>R 20,000.00</b> (Paid by the <b>contractor</b> )	
<b>Carried Forward</b>		R
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<b>Brought Forward</b>		R
3.2	Supplementary / Special insurance to be effected by [10.1.2, 11.1-3, 12.6]	N/A
	For the sum of ( <i>amount</i> )	N/A
	With a deductible of ( <i>amount</i> )	N/A
3.3	Public liability insurance to be effected by <b>the contractor</b> [10.1.3, 12.6]	
	For the sum of <b>R 10 000,000.00</b> to be paid by the contractor	
	With a deductible of <b>R 10,000.00 (Paid by the contractor)</b>	
3.4	Support insurance to be effected by the <b>Contractor</b> [11.1.1]	Yes
	For the sum of ( <i>amount</i> )	<b>R5 000 000.00</b>
	With a deductible of ( <i>amount</i> )	<b>R12 000.00</b>
3.5	Special insurance to be effected by [11.1.2-3, 12.1]	N/A
	Type:	
	For the sum of ( <i>amount</i> )	N/A
	With a deductible of ( <i>amount</i> )	N/A
<b>4.0</b>	<b>PRACTICAL COMPLETION DATES AND PENALTIES</b>	
<b>Carried Forward</b>		R
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		<b>Brought Forward</b>	R
46	<p>4.1 For the works as a whole :</p> <p>30 June 2020</p> <p>(refer to 4.2)</p> <p>The penalty per calendar day R15 000.00</p>		
	<p>4.2 For the works in sections :</p> <p style="text-align: right;"><b>Yes</b></p> <p>Section 1 :15 April 2020</p> <p>Section 2: 30 June 2020</p> <p>4.2.1 Section 1: R15 000.00 per day</p> <p>4.2.1 Section 2: R5 000.00 per day</p>		
	<b>5.0 DOCUMENTS AND GENERAL</b>		
	<p>5.1 Construction document copies to be supplied to the contractor free of charge [3.7] (number of copies)</p> <p style="text-align: right;"><b>ONE</b></p>		
	<p>5.2 The priced document may be used as a specification of materials and goods and work methods [3.9]</p> <p style="text-align: right;"><b>No</b></p>		
	<p>5.3 The contractor shall provide a schedule of rates [3.10]</p> <p style="text-align: right;"><b>No</b></p>		
	<p>5.4 Changes made to the JBCC standard documents [3.11]</p> <p style="text-align: right;"><b>Yes</b></p>		
		<b>Carried Forward</b>	R
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<b>Brought Forward</b>		R
5.5	On acceptance of the tender, the priced document is to be submitted within the stated working days <i>[15.1.1]</i>	
<b>With tender submission</b>		
5.6	Work to be undertaken by direct contractors <i>[22.2]</i>	
5.7	The contractor shall provide documents for contract signing within 7 (seven) days of site handover	
5.8	<u>Document Control Write-up</u>  All document control and information management for the project is being done using BIM360 software. The tenderer to take note that they will be assigned BIM360 user licenses for the project and that basic training will be provided. The assigned user/s will be expected to swiftly master the software and operate it effectively during the project period. It should be noted that basic training and support will be made available to the successful contractor, however all related travel costs and additional advanced training will be for the tenderer's cost.	
5.9	On achievement of practical completion the contractor is to hand over manuals etc related to the works as listed below : <i>[24.9]</i>  N/A	
5.10	Interim payment certificate to be issued by <i>[31.1]</i>  <b>31st day of the month</b>	
6.0	<b>CHANGES MADE TO THE STANDARD JBCC DOCUMENT</b>	
<b>Carried Forward</b>		R
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<p>Certain provisions of the JBCC Series 2000 Principal Building Agreement have altered / expanded upon. Details of such alterations are recorded under each clause within these bills of quantities</p>		
3.2.6	<p>Adjustment of preliminaries [3.2.1-2]</p> <p>The amount or items of preliminaries shall be adjusted to take account of the theoretical financial effect which changes in time and/or value have on preliminaries. Such an adjustment shall be based on the particulars provided by the <b>contractor</b> for this purpose in terms of Option A or B and shall preclude any further adjustment of preliminaries.</p> <p><b>Option A (three categories)</b> <span style="float: right;"><b>Yes/No</b></span></p> <p><b>Option B (detailed breakdown)</b> <span style="float: right;"><b>Yes/No</b></span></p> <p><b>Payment certificate cash flow</b></p>	
<b>4.0</b>	<b>EMPLOYER CHANGES TO JBCC STANDARD DOCUMENTS</b>	
4.1	<p>Changes (if any) in terms of the Employer's Contract Data are accepted [3.11]</p> <p style="text-align: right;"><b>Yes</b></p>	
<b><u>PART B - PRELIMINARIES</u></b>		
47	<p>CLAUSE 1.0 : DEFINITIONS AND INTERPRETATION</p> <p>Fixed .R .....; Time .R.....; Value .R.....</p>	Item
48	<p>CLAUSE 2.0 : DOCUMENTS</p> <p>Fixed .R .....; Time .R.....; Value .R.....</p>	Item
<b>Carried Forward</b>		R
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**Brought Forward**

R

Clause 2.2 is amended by the addition of the following :-

These provisional bills of quantities shall not be used for ordering purposes.

No alteration, erasure, amendment, note, deletion, insertion, omission or addition is to be made to this document. Any such alteration, etc., made will not be recognised, but the reading of these bills of quantities, as prepared by the quantity surveyor, will be adhered to.

The Tenderer is referred to the "Standard Preambles for Trades" for full descriptions of materials and methods referred to be used in these bills of quantities insofar as they apply. Where descriptions in the bills of quantities differ from those in conjunction with SABS 1200, the descriptions in the bills of quantities are to apply.

No claim whatsoever shall be entertained in respect of errors in pricing due to brevity of descriptions of items in the bills which are fully described when read in conjunction with the relevant "Standard Preambles."

The rates contained in the priced bills of quantities shall apply irrespective of the final quantities of the different classes and kinds of work actually executed. No claims for extras, loss of profit, variation of rates or other similar claims will be entertained as a result of any variations whatsoever between the contract sum and the final value of the works.

Budgetary Allowances and Prime Cost Amounts contained herein may be omitted or reduced at the principal agent's discretion and the contractor shall not be entitled to claim for any loss by way of reduction or omission of any discounts, or percentage relating to Budgetary Allowances or Prime Cost Amounts or any loss of profit related thereto

49 CLAUSE 3.0 : PREVIOUS WORK AND ADJOINING PROPERTIES

Fixed .R .....; Time .R.....; Value .R.....

Item

50 CLAUSE 4.0 : SAMPLES, SHOP DRAWINGS AND MANUFACTURER'S INSTRUCTIONS

Fixed .R .....; Time .R.....; Value .R.....

Item

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Clause 4.3 is deleted in its entirety and replaced with the following :

The term "shop drawings" shall mean drawings, layout drawings, diagrams, illustrations, schedules, performance charts, brochures, operating manuals and other data which are prepared by the contractor or any subcontractor, manufacturer, supplier or distributor and which illustrate manufacturing details and methods of execution of work.

The contractor shall ensure that all shop drawings required for the works in terms of this Contract, all sub-contracts and/or any principal agent's instruction, are prepared and submitted timeously in accordance with the following procedure:

- (i) One set prints of shop drawings of all fabricated work, working or setting out drawings, shop details and schedules shall be submitted to the principal agent for approval. Such work shall not be carried out until such approval has been given.
- (ii) Shop drawings shall be submitted to the principal agent for approval and the contractor is to allow the principal agent a reasonable check period (minimum one week) from the date of receipt of shop drawings, before returning the drawings to the contractor in accordance with the works programme.
- (iii) All submissions shall be prepared in accordance with the contract drawings and specifications and/or any principal agent's instructions and any deviation shall be specifically highlighted in writing, with a detailed explanation of the reason for such deviation, together with any cost and/or time implications.  
  
Delays in approval of shop drawings due to non-compliance with drawings, specifications and/or principal agent's instructions, shall not constitute ground for any claims for delay, extension of time and the like.
- (iv) When the principal agent advises that shop drawings have been approved, the original transparencies of such drawings shall immediately be submitted to the principal agent

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R

so that the principal agent's stamp of approval may be appended thereto. Thereafter, four prints of the approved shop drawings, setting out drawings and schedules shall be furnished to the principal agent. As many prints of the approved shop drawings and schedules as required, shall also be furnished to the works. No work shall be performed in accordance with drawings and/or catalogues not stamped with the principal agent's approval.

- (v) The contractor, subcontractor or supplier, as the case may be, shall be responsible for ensuring that all dimensions affecting shop drawings conform to the dimensions of built work.
- (vi) The principal agent's approval of shop drawings is limited to checking conformity with specification and shall not relieve the contractor, subcontractor or supplier of his responsibility for design where called for, erection or installation fit, nor does it vary his contractual or delictual obligations and liabilities.
- (vii) Should the contractor, subcontractor or supplier be of the opinion that corrections to shop drawings made by the principal agent constitute a change to the scope of work, then he shall immediately advise the principal agent in writing of this, together with the cost and/or programme implications thereof, in order to obtain the principal agent's directive.

51 CLAUSE 5.0 : DEPOSITS AND FEES

Fixed .R .....; Time .R.....; Value .R.....

Item

52 CLAUSE 6.0 : TEMPORARY SERVICES

Fixed .R .....; Time .R.....; Value .R.....

Item

53 CLAUSE 7.0 : PRIME COST AMOUNTS

Fixed .R .....; Time .R.....; Value .R.....

Item

54 CLAUSE 8.0 : SPECIAL ATTENDANCE ON N/S  
SUBCONTRACTORS

Fixed .R .....; Time .R.....; Value .R.....

Item

**Carried Forward**

R

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Preliminaries



<b>Brought Forward</b>		R
CLAUSE 9.0 : GENERAL		
55	9.1 Protection of the works  Fixed .R .....; Time .R.....; Value .R.....	Item
56	9.2 Protection / isolation of existing / sectionally occupied works  Fixed .R .....; Time .R.....; Value .R.....	Item
57	9.3 Security of the works  Fixed .R.....; Time ..R .....; Value R.....	Item
58	9.4 Notice before covering work  Fixed .R .....; Time .R.....; Value .R.....	Item
59	9.5 Disturbance  The work shall be carried out with as little disturbance and noise as possible, as the buildings will be occupied throughout the contract period  Fixed .R .....; Time .R.....; Value .R.....	Item
60	9.6 Environmental disturbance  Fixed .R .....; Time .R.....; Value .R.....	Item
61	9.7 Works cleaning and clearing  Fixed .R.....; Time ..R.....; Value ..R.....	Item
62	9.8 Vermin  Fixed .R .....; Time .R.....; Value .R.....	Item
63	9.9 Overhand work  Fixed .R .....; Time .R.....; Value .R.....	Item
CLAUSE 10.0 : SCHEDULE OF VARIABLES		
<b>Carried Forward</b>		R
Bill No. 1 Preliminaries		

		<b>Brought Forward</b>		R
64	10.1 [2.2]	Provisional bills of quantities The quantities are provisional  Fixed .R .....; Time .R.....; Value .R.....	<b>Yes</b>	Item
65	10.2 [2.3]	Availability of construction documentation Construction documentation is complete  Fixed .R .....; Time .R.....; Value .R.....	<b>No</b>	Item
66	10.3 [3.1]	Previous work - dimensional accuracy  Fixed .R .....; Time .R.....; Value .R.....		Item
67	10.4	Previous work - defects  Fixed .R .....; Time .R.....; Value .R.....		Item
68	10.5	Inspection of adjoining properties  Fixed .R .....; Time .R.....; Value .R.....		Item
69	10.6 [6.1]	Water Option A (by contractor) Option B (by employer - free of charge) Option C (by employer - metered - Cost to the contractor) Fixed R.....; Time .R.....; Value .R.....	<b>Yes</b> <b>No</b> <b>No</b>	Item
70	10.7 [6.2]	Electricity Option A (by contractor) Option B (by employer - free of charge) Option C (by employer - metered - Cost to the contractor) Fixed .R.....; Time .R.....; Value .R.....	<b>Yes</b> <b>No</b> <b>No</b>	Item
		<b>Carried Forward</b>		R
Bill No. 1 Preliminaries				

		<b>Brought Forward</b>		R
71	10.8	Telecommunications		
	[6.3]	Telephone	<b>Yes</b>	
		Facsimile	<b>Yes</b>	
		E-mail	<b>Yes</b>	
		Fixed .R.....; Time .R.....; Value .R.....		Item
72	10.9	Ablution facilities		
	[6.4]			
		Option A (by contractor)	<b>Yes</b>	
		The WC's and / or other sanitary fittings in the building shall not be used by the workmen under any circumstances.		
		Fixed .R.....; Time .R.....; Value .R.....		Item
		<b>Carried Forward</b>		R
Bill No. 1 Preliminaries				

<b>Brought Forward</b>		R
73	<p>10.10 Protection of the works [9.1]</p> <p>The contractor shall provide for the protection of all work for which a certificate of practical completion has not yet been issued and which is liable to be damaged from any cause, which protection shall, inter alia, include :</p> <p>i) the protection of the works from inclement weather, exposure to the sun and the removal of water from whatever source from the works (keeping excavations free of water separately measured)</p> <p>ii) the provision and maintenance of all necessary temporary protection of finished and/or existing work liable to be damaged during the progress of the works by properly covering up, isolating, etc., as required</p> <p>The contractor shall be responsible for any damage which may occur and shall make good at his own expense</p> <p>Fixed .R .....; Time .R.....; Value .R.....</p>	Item
74	<p>10.11 Protection / isolation of existing / sectionally occupied works [9.2]</p> <p>Fixed .R .....; Time .R.....; Value .R.....</p>	Item
75	<p>10.12 Disturbance [9.5]</p> <p>Specific requirements</p> <p>The contractor shall keep the site, structures, etc well watered during operations to prevent dust and shall provide and erect and remove on completion of the works all necessary temporary dust screens all to the satisfaction of the principal agent</p> <p>Fixed .R .....; Time .R.....; Value .R.....</p>	Item
<b>Carried Forward</b>		R
<p>Bill No. 1 Preliminaries</p>		

<b>Brought Forward</b>		R
76	<p>10.13 Environmental disturbance [9.6]</p> <p>Specific requirements</p> <p>Fixed .R .....; Time .R.....; Value .R.....</p>	Item
<b><u>PART C - ADDITIONAL PRELIMINARIES</u></b>		
77	<p>CLAUSE 2.0 : DOCUMENTS</p> <p>Fixed .R .....; Time .R.....; Value .R.....</p> <p>The following clauses are additional to or, augment the clauses contained in Parts "A" and "B"</p> <p><b>1.0 THE SITE</b></p>	Item
78	<p>CLAUSE 1.1 : UNAUTHORISED PERSONS ON SITE</p> <p>Fixed .R .....; Time .R.....; Value .R.....</p> <p>The contractor shall at all times strictly exclude all unauthorized persons from the works.</p> <p>No workmen are to be allowed under any circumstances to sleep or deposit any personal effects on the premises. The contractor must provide any necessary independent shelters or sheds required for any workmen or watchmen left on the site.</p>	Item
79	<p>CLAUSE 1.5 : ACCESS TO SITE</p> <p>Fixed .R .....; Time .R.....; Value .R.....</p>	Item
80	<p>CLAUSE 1.3 : MAINTENANCE OF ROADS AND SERVICES</p> <p>Fixed .R .....; Time .R.....; Value .R.....</p>	Item
<b>Carried Forward</b>		R
<p>Bill No. 1 Preliminaries</p>		

**Brought Forward**

R

The contractor shall keep the approaches to the parking areas clear of mud, other debris and the like caused by the contractor or any subcontractors.

Damages caused to public and private roads and services due to negligence by the contractor, shall be made good by the contractor at his own expense.

**2.0 FINANCIAL ASPECTS**

81 **CLAUSE 2.1 : PRICING OF PRELIMINARIES**

Fixed .R .....; Time .R.....; Value .R.....

Item

These bills of quantities have been formulated in the conventional manner, whereby the preliminaries have been included as a separate bill in order to enable tenderers to price their site establishment costs, site management, etc.

In pricing the preliminaries, tenderers are required to price the relevant items individually, as a single lump sum preliminaries amount will not be accepted.

In the event that a tenderer elects not to price the preliminaries bill as contained within these bills of quantities, then it will be deemed that all relevant preliminaries costs have been included within the rates as tendered within the measured bills of quantities. Adjustment of the preliminaries will, in this instance, only be by way of remeasured final quantities applied to tendered rates. Tenderers acknowledge that by pricing the preliminaries in this way, they will forfeit any claim for the independent adjustment of preliminaries costs arising out of an extension of the construction period granted in terms of Clause A29.

82 **CLAUSE 2.2 : PRICING OF BILLS**

Fixed .R .....; Time .R.....; Value .R.....

Item

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R

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R

Tenderers are to allow opposite each item for all costs in connection therewith. All prices to include, unless otherwise stated, for all materials, fabrication, conveyance and delivery, unloading, storing, unpacking, hoisting, labour, setting, fitting and fixing in position, cutting and waste (except where to be measured in accordance with the Standard System of Measurement), patterns, models and templates, plant, temporary works, returning of packaging, duties, taxes, imports, establishment charges, overheads, profit and all other obligations arising out of the agreement.

Items left unpriced will be deemed to be covered in prices against other items throughout these bills of quantities and no claim for any extras arising out of the tenderer's omission to price any item will be entertained.

Prices for all plant, temporary works, services and other items provided shall include for the supply, maintenance, operating cost and subsequent removal and making good as necessary.

The contractor shall execute work during "overtime" hours as necessary in order to complete the project within the agreed construction period and shall provide such resources and work such overtime hours as necessary. Costs for the execution of this work under these conditions shall be included within the contract sum.

Where items in the Bill have a unit of "RATE", this is for "Rate only". Any work to be done as instructed by the Principal Agent will be measured and priced against this rate

83 CLAUSE 2.3 : NATURE OF PROJECT IN RELATION TO PRICING

Fixed .R .....; Time .R.....; Value .R.....

Item

84 CLAUSE 2.4 : COSTS OF CLAIMS

Fixed .R .....; Time .R.....; Value .R.....

Item

**Carried Forward**

R

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**Brought Forward**

All costs incurred by the contractor in the preparation of claims to the satisfaction of the principal agent and/or quantity surveyor shall be borne by the contractor.

The contractor together with the Principal Agent shall provide a written opinion on all claims, including those submitted by selected/nominated subcontractors, pertaining to reduced time available for execution of the relevant work, out-of-sequence working, lack of access or claims of a similar nature.

**3.0 INSURANCES**

85 CLAUSE 3.1 : SATISFACTION OF CONTRACTOR AS TO SCOPE OF INSURANCES

Fixed .R .....; Time .R.....; Value .R.....

Item

Submission of a tender shall be deemed as acceptance by the contractor that he is satisfied with the scope of the insurances effected by the employer, supplemented by any additional insurance considered necessary by himself.

The employer warrants that the insurances effected by him shall remain in force for the duration of the contract including the period of maintenance.

Any clarification of the scope of cover provided by the policies arranged by the employer should be obtained from the employer's insurance brokers.

The contractor warrants that he shall give all notices and shall observe all the terms and conditions and requirements of all insurances applicable to this contract.

Where the contractor is responsible for the appointment of subcontractors, then the contractor shall:

- i) ensure that potential and appointed subcontractors are aware of the whole content of Clauses A10.0, A11.0 and A12.0
- ii) ensure the compliance of subcontractors with these Clauses where applicable.

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<b>Brought Forward</b>		R
86	<p>CLAUSE 3.2 : CLAIMS UNDER INSURANCE ARRANGED BY THE EMPLOYER</p> <p>Fixed .R .....; Time .R.....; Value .R.....</p> <p><b>4.0 DIRECT CONTRACTS</b></p>	Item
87	<p>CLAUSE 4.1 : DIRECT AND SEPARATE CONTRACTS</p> <p>Fixed .R .....; Time .R.....; Value .R.....</p> <p><b>5.0 HANDOVER, GUARANTEES AND MAINTENANCE INSTRUCTIONS / MANUALS</b></p>	Item
88	<p>CLAUSE 5.1 : AS BUILT DRAWINGS</p> <p>Fixed .R .....; Time .R.....; Value .R.....</p> <p>The contractor shall be required to ensure that, at the end of the project, copies of the as-built drawings, showing all the salient information, are submitted to the principal agent.</p> <p>All such as-built drawings are required to be lodged prior to the issue of the certificate of works completion (refer Clause A25 hereof).</p>	Item
89	<p>CLAUSE 5.2 : GUARANTEES AND MAINTENANCE INSTRUCTIONS / MANUALS</p> <p>Fixed .R .....; Time .R.....; Value .R.....</p> <p>The contractor shall obtain and hand over to the principal agent on practical completion, all relevant guarantees as required by the principal agent or provided by manufacturers, suppliers or subcontractors.</p> <p>The contractor shall ensure that all warranties and guarantees received are fully ceded to the employer on works completion, failing which, the issue of the works completion certificate and the release of construction guarantee, will be withheld until this is satisfactorily completed.</p>	Item
<b>Carried Forward</b>		R
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<b>Brought Forward</b>		R
	<p>The guarantees shall state that workmanship, materials and installations are guaranteed for a specified period calculated from the date of practical completion of the works and that any defects in the workmanship, materials and installation that may arise during that period, shall be made good at the expense of the contractor / subcontractors doing the work, upon written notice from the principal agent or the employer to do so.</p>	
90	<p><b>CLAUSE 5.3 : SECURITY AT COMPLETION</b></p> <p>Fixed .R .....; Time .R.....; Value .R.....</p> <p><b>6.0 GENERAL IN RESPECT OF SPECIALIST INSTALLATIONS</b></p> <p><b>Note :</b> The contractor is to ensure that the following requirements, as stated in the subcontractor documentation in respect of specialist equipment and services installations by specialist subcontractors under his control, are adhered to:</p>	Item
91	<p><b>CLAUSE 6.1 : TESTS AND INSPECTIONS PRIOR TO COMPLETION</b></p> <p>Fixed .R .....; Time .R.....; Value .R.....</p> <p>All specialist plant and equipment, subject to the principal agent's sole discretion, is subject to acceptance tests, which shall be arranged in the works of the subcontractor / supplier within 10 days of notification that such plant or equipment is available for testing . The subcontractor shall inform the principal agent in writing, indicating the exact dates for these acceptance tests during the course of the last month of manufacture of such plant or equipment.</p> <p>In the event that the principal agent or his representatives cannot witness such tests, the employer may:</p> <p>i) appoint a specialist inspection organisation to witness such tests at his expense on behalf of the principal agent or his representatives.</p> <p style="text-align: center;">OR</p> <p>ii) accept the subcontractor's certificate testifying as to the quality and performance of the</p>	Item
<b>Carried Forward</b>		R
<p>Bill No. 1 Preliminaries</p>		

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R

specialist plant / equipment so supplied.

Should no inspection have been made by the date indicated by the subcontractor as set out above, the equipment will be deemed as accepted and packed accordingly for delivery.

The final acceptance will take place on site in the presence of the subcontractor responsible for the commissioning of the equipment. The principal agent's representative shall also be present.

The subcontractor shall demonstrate to the principal agent the full scope of operation of the installation and shall ensure that he is satisfied that the principal agent is fully aware of all the operational aspects of the installation prior to handover at practical completion stage.

The principal agent shall be afforded access at all reasonable times to such part of the works on site or at the subcontractor's premises or the premises of the manufacturer of component parts, as may be necessary for the purpose of inspecting, examining and testing the materials, workmanship and performance of any plant or equipment for the works.

The subcontractor shall be responsible for the tests required by any local statute, building regulation, etc.

Any breakdown or mechanical failure and any damage or consequential losses which may arise from such breakdown, mechanical or structural failure, will be the responsibility of the subcontractor.

92 CLAUSE 6.2 : PERFORMANCE OF INSTALLATION

Fixed .R .....; Time .R.....; Value .R.....

Item

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The efficiency of the design is the responsibility of the subcontractor who shall ensure that the quality of workmanship and the installation of equipment meets the requirements of the specification and is done in such a manner that the equipment performance meets with the figures published by the manufacturers an/or suppliers. The subcontractor, by entering into this contract, shall be deemed to have offered his services, workmanship, materials and equipment to meet the requirements of the specification and shall further be deemed to have ensured that the suppliers and manufacturers of the equipment installed by him under this contract, have manufactured and supplied such equipment to perform within the recommended limits of the manufacturer's design and performance figures, as well as to comply with the specification supplied.

R

93 CLAUSE 6.3 : GUARANTEE

Fixed .R .....; Time .R.....; Value .R.....

Item

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Where guarantees are called for, the contractor shall obtain a written guarantee, addressed to the employer, from the firm supplying the materials and/or doing the work and shall deliver same to the principal agent not later than the works completion date. The guarantee shall state that workmanship, materials and installation are guaranteed for a specified period from the final completion date and that any defects that may arise during the specified period shall be made good at the expense of the firm supplying the materials and/or doing the work, upon written notice from the principal agent to do so. This guarantee will not be enforced if the work is damaged by defects in the construction of the building in which case the responsibility for replacement shall rest entirely with the contractor. The principal agent shall be the sole judge of the cause responsible for defects in the works and his decision shall be final and binding in terms of the agreement.

**Overtime**

Should overtime be required to be worked for any reason whatsoever, the costs of such overtime is to be borne by the contractor unless the principal agent has specifically authorised, in writing, prior to execution thereof, that costs for such overtime are to be borne by the employer

**Co-operation of contractor for cost management**

It is specifically agreed that the contractor accepts the obligation of assisting the agents in implementing proper cost management on this project. The contractor will be advised by the principal agent of all cost management procedures which will be implemented to ensure that the final account does not exceed the budget

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R

The subcontractor shall guarantee the complete installation for a period of one year or as directed by the Principal Agent from the date of acceptance of the installation by the principal agent against defects as a result of patent or latent defects of the design and apparatus, as well as against faulty materials and workmanship. The guarantee must provide that all parts, spares, consumables and appurtenances that become defective during the guarantee period, be replaced free of charge of any nature to the employer. The costs of labour and transportation required to replace such part of a defective installation, shall be borne by the subcontractor and shall be included in his guarantee.

The expiry of the one year guarantee period shall in no way relieve the subcontractor of any of his obligations and/or responsibilities in respect of latent defects in terms of Clause A27 hereof.

The subcontractor shall cede to the employer the remainder of any equipment guarantee which he has received from his suppliers and which extends beyond the period of twelve months mentioned herein.

94 **CLAUSE 6.4 : COMMISSIONING AND TESTING**

Fixed .R .....; Time .R.....; Value .R.....

Item

The subcontractor shall commission and test the entire installation at his own expense, including provision of all test equipment. Such testing is to be done in the presence of the principal agent, who shall have been notified of the dates and approximate duration of the tests, sufficiently in advance so as to allow attendance at such tests

**7.0 GENERAL**

95 **CLAUSE 7.1 : CONTRACTOR TO BE RESPONSIBLE**

Fixed R..... Time .....Value R.....

Item

**Carried Forward**

R

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R

The contractor acknowledges that the principal objective of his appointment is his expert knowledge in the execution of the scope of work of this contract. The contractor shall be solely responsible for all aspects of the construction of the works including, but not limited to management, resourcing, programming and co-ordination of sequencing of work all as required for the type of project described and within the time limits and quality standards specified.

96 CLAUSE 7.2 : NOTICE BOARDS, MEDIA RELEASES, ADVERTISING, ETC.

Fixed .R .....; Time .R.....; Value .R.....

Item

All rights of publication of articles in the media, together with any advertising relating to, or in any way connected with this project, shall vest with the employer.

The contractor together with his subcontractors shall not, without the written consent of the employer, cause any statement or advertisement to be printed, screened or aired by the media, or have any advertising signage displayed on site.

97 CLAUSE 7.3 : METHOD STATEMENT

Fixed .R .....; Time .R.....; Value .R.....

Item

The contractor shall produce, when required to do so by the principal agent, a method statement outlining the methods of construction and labour and plant resources that he proposes to use in the execution of the works. Any approval given or observation made by the principal agent shall not relieve the contractor of his sole responsibility to adopt the methods of construction and to provide the labour and plant resources necessary for the due and proper timeous execution of the works.

98 CLAUSE 7.4 : OVERLOADING

Fixed .R .....; Time .R.....; Value .R.....

Item

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R

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<b>Brought Forward</b>		R
	<p>The contractor shall take all necessary steps to ensure that no damage occurs due to overloading of any portion of the works or temporary works, scaffolding, etc. The contractor shall submit details of his proposed loading, storage, plant erection, etc., to the principal agent for approval prior to proceeding with such loading, storing or erecting and shall comply with and pay for the principal agent's requirements in connection with the provision of temporary support work, etc. Any damage caused to the works by overloading shall be made good by the contractor at his sole expense.</p>	
99	<p><b>CLAUSE 7.5 : STRUCTURAL SAFETY</b></p> <p>Fixed .R .....; Time .R.....; Value .R.....</p>	Item
100	<p><b>CLAUSE 7.6 : CONDEMNED WORK</b></p> <p>Fixed .R .....; Time .R.....; Value .R.....</p> <p>The contractor shall remove from the site all materials not conforming with the relevant specification and condemned by the principal agent, whether incorporated in the works or not. He shall replace such material and re-execute the affected work in accordance with the contract and without expense to the employer.</p> <p>The contractor shall also bear the expense of making good any other work damaged or destroyed by such removal or replacement.</p>	Item
101	<p><b>CLAUSE 7.7 : PHOTOGRAPHIC RECORD</b></p> <p>Fixed .R .....; Time .R.....; Value .R.....</p> <p>A weekly photographic record is to be provided by the contractor, recording the state of progress of the works. Copies of each photograph annotated with the location and date, are to be made available to the employer via the principal agent.</p>	Item
102	<p><b>CLAUSE 7.8 : MODE OF PROCEDURE</b></p> <p>Fixed .R .....; Time .R.....; Value .R.....</p>	Item
<b>Carried Forward</b>		R
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R

Notwithstanding anything to the contrary contained herein, the principal agent at all times reserves the right to direct the order in which the various parts of the contract are to be executed. The contractor shall give priority to any individual section or portion of the works that, in the opinion of the principal agent, requires to be expedited.

Should the contractor and/or principal agent be of the opinion that such instruction warrants a revision of date for practical completion and / or an adjustment to the contract value then this will be dealt with in terms of clause 29 and clause 32.

Should it appear, in the principal agent's opinion, that work in any area is not being executed in accordance with the requirements of the programme, the contractor shall provide additional manpower and resources and shall work additional overtime and do everything else required to bring the work back to programme to the satisfaction of the principal agent.

103 CLAUSE 7.9 : ROYALTIES, PATENT RIGHTS AND FEES

Fixed .R .....; Time .R.....; Value .R.....

Item

The contractor shall indemnify the principal agent against any action, claim, demand, costs or expenses arising from or incurred by reason of any infringement of letters, patent design, trademark, name, copyright or other protected rights in respect of any machine, plant, work, materials, thing, system or method of using, fixing, working or arrangement used or fixed or supplied by the contractor, but such indemnity shall not cover any use of the equipment or part thereof otherwise than in accordance with the provisions of the specification.

All payments and royalties payable in one sum or by instalments or otherwise, shall be included by the contractor in the price and shall be paid by him to those to whom they may be due or payable.

In the event of any claim being made or action brought against the principal agent arising out of the matter referred to in this clause, the contractor shall be promptly notified thereof and may, at his own expense, conduct negotiations for the settlement of the same and/or litigation, that may arise therefrom. The principal

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R

agent shall not, unless and until the contractor shall have failed to take over and conduct the negotiations of litigation, make any admission which might be prejudicial thereto.

The conduct by the contractor of such negotiations or litigation shall be conditional upon the contractor having first given the principal agent such reasonable security as shall from time to time be required by the principal agent, to cover the amount ascertained or agreed or estimated, as the case may be, or any compensation, damage, expenses and costs for which the principal agent may become liable in respect of such infringement as aforesaid. The principal agent shall, at the request of the contractor, afford all available assistance for the purpose of contesting any such claim or action and shall be repaid the expenses incurred in doing so.

The conduct by the contractor of such negotiations or litigation shall be conditional upon the contractor having first given the principal agent such reasonable security as shall from time to time be required by the principal agent, to cover the amount ascertained or agreed or estimated, as the case may be, or any compensation, damage, expenses and costs for which the principal agent may become liable in respect of such infringement as aforesaid. The principal agent shall, at the request of the contractor, afford all available assistance for the purpose of contesting any such claim or action and shall be repaid the expenses incurred in doing so.

104 CLAUSE 7.10 : CONTINUOUS SUPPLY OF ELECTRICITY

Fixed .R .....; Time .R.....; Value .R.....

Item

The contractor shall allow for the provision of suitable standby generated power including all connection, fuel and maintenance costs to meet the requirement of the contract.

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R

105 7.10 : LOCAL CONTENT

7.10.1 The minimum spending on local content should be calculated as 30% (thirty) of the contract value

7.10.2 An independent audit will be conducted by Quantity Surveying to verify the spending on local content

7.10.3 The contractor will be required to submit a monthly report with his/her claim stating the local content

7.10.4 A concession should be signed by the contractor and attached with interim claim confirming the local spending

7.10.5 The Principal Agent will issue the payment notification which is the liquid contractual binding document for payment

7.10.6 Monthly claim should clearly state the amount claimed for local spending local spending final account settlement statement should be finalised prior to principal contract final account settlement and the settlement of local content spending should be incorporated with the principal contract final account settlement

**7.11 Penalties**

The tenderer to take note that, should actual interim and overall Local Participation spend targets are not achieved during the project, penalties will be implemented as outlined as follows:

No	Local Content Spending
1.	Less than 10 %
2.	Above 10 % but less than 20%
3.	Above 20% but less than 30%

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<b>Brought Forward</b>		R
106	<p><b>8.0 INTERFERENCE WITH TRAFFIC FLOW AND NEARBY PROPERTIES</b></p> <p>Fixed .R .....; Time .R.....; Value .R.....</p> <p>All operations necessary for the execution of the works and for the construction of any temporary works shall not interfere unnecessarily or improperly with the access of the public to permanent roads and footpaths. The Contractor shall indemnify the Employer in respect of all claims, demands, proceedings, damages, costs, charges and expenses whatsoever arising out of or in respect of or in relation to any such matters.</p> <p>The Contractor shall at all times accommodate such provisions as may be necessary in the opinion of the Principal Agent to ensure that disruption to the occupants of the nearby buildings or the public is kept to an absolute minimum.</p> <p>The Contractor shall make all necessary provisions in his rates for these requirements and no additional entitlement on the part of the Contractor in compliance with these requirements shall be entertained.</p> <p>The programme must be structured in such a way to keep the disruption to traffic as little as possible.</p>	Item
107	<p><b>9.0 INFRINGEMENT WARRANTY</b></p> <p>Fixed .R .....; Time .R.....; Value .R.....</p> <p>THE CONTRACTOR HEREBY:</p> <p>(i) warrants to the Employer that he has the right to perform the contract works;</p> <p>(ii) warrants that in so performing the contract works that he shall not infringe the rights of any other person.</p>	Item
<b>Carried to Summary</b>		R
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Item No		Quantity	Rate	Amount
	<b><u>BILL NO 2</u></b>			
	<b><u>DEMOLITIONS AND ALTERATIONS</u></b>			
	All material from demolitions will remain the property of the employer, who will have the sole discretion over which material (if any) shall be removed from site. Prior to demolitions, the Principal Agent will point out which material will be removed from site. The contractor shall allow in his rates for removal of all rubble from site			
1	Break up and remove existing precast concrete block paving	m2	1 500	
2	Hack up and remove existing asphalt paving and layer works	m2	7 500	
3	Take down existing shade net carports, complete with steel posts, etc	m2	250	
4	Take out and remove existing precast concrete kerb, complete with concrete backing	m	4 500	
5	Demolish existing steel palisade fence with brick piers, complete with posts, foundations, etc	m	1 200	
6	Break down and remove existing façade wall approximately 4m high, including digging up and removing concrete foundation (electronic signs to be removed by direct subcontractor)	m	400	
7	Demolish existing informal trading structure, comprising brick walls, concrete columns and shelves and steel and polycarbonate roof sheeting on steel structure, including all foundations, etc	m2	750	
8	Break up and remove existing concrete open storm water channel 2000mm wide x 85mm thick	m3	10	
9	Demolish existing single storey Roman's Pizza building, approximately 100m <sup>2</sup> , comprising brick walls, concrete floor, sheet steel roofing on timber or steel roof structure, complete with all doors, windows, etc (Tenderers shall inspect the building on site prior to pricing of this item)	No	1	
	<b>Carried Forward</b>			
	Bill No. 2 Demolitions and alterations			R

<b>Brought Forward</b>			R
10	Demolish existing single storey outbuilding, approximately 90m <sup>2</sup> , comprising brick walls, concrete floor, sheet steel roofing on timber or steel roof structure, complete with all doors, windows, etc (Tenderers shall inspect the building on site prior to pricing of this item)	No	1
11	Demolish and remove existing building approximately 2625m <sup>2</sup> in area and approximately 5m high, formed of brick walls and steel roof structure (Tenderers shall inspect the site prior to pricing this item)	No	1
12	Take down existing lamp post and remove concrete footing	No	50
13	Take down existing traffic sign and remove concrete footing	No	10
<b>Carried to Summary</b>			R
Bill No. 2 Demolitions and alterations			

Item No	<b><u>BILL NO 3</u></b>	Quantity	Rate	Amount
	<p><b><u>EARTHWORKS</u></b></p> <p>Earthworks to comply with the following specifications:</p> <p>SANS 1200 D - Earthworks SANS 1200 C - Site clearance</p> <p><u>Nature of ground</u></p> <p>A soils investigation has been carried out on the site by the engineer and the report is annexed to these bills of quantities. The soils report indicates that the ground varies between clay, reworked soil of mixed origin and weathered norite, all of which will be deemed as "earth". All very hard unweathered shale, ironstone, etc, the removal of which necessitates the use of explosives or heavy duty hydraulic percussion hammers (peckers), will be classified as "hard rock"</p> <p><u>Subterranean water</u></p> <p>No subterranean water is currently encountered</p> <p>The contractor should, however be aware that subterranean water may appear after a rainy period</p> <p><u>Carting away of excavated material</u></p> <p>Descriptions of carting away of excavated material shall be deemed to include loading excavated material onto trucks directly from the excavations or, alternatively, from stock piles situated on the building site</p> <p><b><u>SITE CLEARANCE</u></b></p> <p><u>Site clearance</u></p>			
1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs, bush, etc and trees not exceeding 200mm girth	m2	10 000	
	<p><b><u>REMOVAL OF TREES ETC</u></b></p>			
	<b>Carried Forward</b>			R
	Bill No. 3 Bulk earthworks			

<b>Brought Forward</b>			R
	<u>Taking out and removing, grubbing up roots and filling in holes</u>		
2	Tree stump not exceeding 1m high, exceeding 200mm and not exceeding 500mm girth	No	45
3	Tree stump not exceeding 1m high, exceeding 500mm and not exceeding 750mm girth	No	15
<b><u>BULK EXCAVATION, FILLING, ETC</u></b>			
<b><u>EARTHWORKS</u></b>			
<b><u>EXCAVATIONS ETC</u></b>			
	<u>Digging up topsoil</u>		
4	Digging up topsoil to an average depth of 150mm and preserving for use as filling (if suitable as instructed by the Principal Agent)	m3	6 158
<b><u>Bulk excavations</u></b>			
5	Bulk excavation in earth not exceeding 2m deep to reduce levels over the site and dumped onto spoil heaps on site	m3	33 063
6	Rip, scarify for a depth of 150mm and re-compact existing in-situ material to 90% mod AASHTO @ ± 2% of optimum moisture content (boulders not exceeding 150mm in size to be removed or broken down with a suitable grid roller)	m2	10 000
7	Extra over bulk excavation in earth for excavation in soft rock	m3	1 322
8	Extra for bulk excavation in earth for excavation in hard rock	m3	5 500
	<u>Extra over all excavations for carting away</u>		
9	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor, including 2km free haul	m3/km	5 000
<b>Carried Forward</b>			R
Bill No. 3 Bulk earthworks			



<b>Brought Forward</b>			R
<b><u>FILLING</u></b>			
10	Filling from the stockpiles on site to make up levels, in 150mm thick layers, compacted to 90% mod AASHTO at optimum moisture content	m3	3 000
11	Imported G7 material in compliance with the specifications as set out on drawing No 20793-010, in 150mm layers, compacted to 93% mod AASHTO at ± 2% of optimum moisture content	m3	7 500
<b><u>TESTING MATERIALS AND WORKMANSHIP</u></b>			
<b><u>Other special tests requested by the Principal Agent</u></b>			
12	Other special tests requested by the Principal Agent	Item	200 000.00
13	Profit and attendance	%	
<b>Carried to Summary</b>			R
Bill No. 3 Bulk earthworks			

Item No		Quantity	Rate	Amount
	<b><u>BILL NO 4</u></b>			
	<b><u>RETAINING WALLS</u></b>			
	<b><u>EARTHWORKS</u></b>			
	<b><u>Excavations</u></b>			
1	Excavation in earth not exceeding 2m deep for surface trenches	m3	1 578	
2	Excavation in earth exceeding 2 and not exceeding 4m deep for surface trenches	m3	725	
3	Extra over excavation in earth for excavation in soft rock	m3	451	
4	Extra over excavation in earth for excavation in hard rock	m3	225	
5	Excavate back vertical side of excavation for placing and removal of formwork, exceeding 2 and not exceeding 4m deep	m2	750	
6	Rip bottom of surface trench excavation 150mm deep, scarify and re-compact to 93% mod AASHTO density at optimum moisture content	m2	935	
	<b><u>Sundries</u></b>			
7	Risk of collapse of sides of excavations not exceeding 1.5m deep	m2	1 259	
	<b><u>Filling</u></b>			
8	Selected earth filling from the stockpiles on site in backfilling behind retaining walls	m3	375	
	<b><u>CONCRETE, FORMWORK AND REINFORCEMENT</u></b>			
	<b><u>CONCRETE</u></b>			
	<b><u>30MPa reinforced concrete in</u></b>			
9	Foundation under walls cast against excavated faces	m3	332	
10	Retaining wall	m3	280	
	<b>Carried Forward</b>			R
	Bill No. 4 Retaining walls			

Brought Forward			R
<b><u>FORMWORK</u></b>			
11	Formwork to sides of retaining wall	m2	1 425
<b><u>REINFORCEMENT</u></b>			
<b><u>High tensile reinforcement in</u></b>			
12	Concrete retaining walls and foundations	t	36.60
<b><u>MASONRY</u></b>			
<b><u>BRICKWORK</u></b>			
<b><u>Brickwork of clay bricks with a minimum compressive strength of 14MPa in 1:5 cement mortar</u></b>			
13	One brick wall	m2	238
<b><u>Semi-face brickwork of approved semi-face bricks and pointed with square recessed horizontal and vertical joints</u></b>			
14	Extra over ordinary brickwork for semi-face brickwork in stretcher bond	m2	476
15	Brick-on-edge coping on top of one brick wall, faced and pointed on two sides and on top	m	350
<b><u>Extra on coping for</u></b>			
16	Mitred corner	No	2
17	Stop end	No	2
<b><u>Brick reinforcement</u></b>			
18	150mm Wide fabric brick reinforcement in one brick walls	m	583
<b>Carried to Summary</b>			R
Bill No. 4 Retaining walls			

Item No		Quantity	Rate	Amount
	<b><u>BILL NO 5</u></b>			
	<b><u>PLUMBING AND DRAINAGE</u></b>			
	All pipework, etc to comply with the following specifications:			
	SANS 1200 LE - Stormwater			
	SANS 1200 L - Medium pressure pipelines			
	SANS 1200 DB - Pipe trenches			
	SANS 1200 LD - Sewers			
	SANS 1200 LB - Bedding			
	<b><u>SANS 1200 DB - EARTHWORKS (PIPE TRENCHES)</u></b>			
	<b><u>8.3.2 (a) Excavate in all materials for trenches, backfill, compact and dispose of surplus material</u></b>			
	<b><u>Pipes up to 700mm dia</u></b>			
1	Up to 1.0m	m3	300	
2	Over 1.0m up to 2.0m	m3	2 200	
	<b><u>8.3.2 (b) Extra over item 8.3.2.(a) above for</u></b>			
3	Hard rock excavation	m3	200	
	<b><u>SANS 1200 LD - SEWERS</u></b>			
	<b><u>8.2.1 Supply, lay, joint, bed (Class B for rigid pipes) and test pipelines</u></b>			
4	110mm Diameter uPVC pipes class 400 heavy duty	m	1 300	
5	160mm Diameter uPVC pipes class 400 heavy duty	m	600	
6	375mm Diameter concrete pipe class 100D	m	50	
	<b><u>8.2.2 Extra over item 8.2.1 for specials</u></b>			
	<b><u>Cleaning eyes complete with junction, bend, end-cap and box and lid</u></b>			
7	110mm Diameter	No	15	
	<b>Carried Forward</b>			
	Bill No. 5 Plumbing and drainage			R

<b>Brought Forward</b>				R
8	160mm Diameter	No	10	
	<b><u>Lateral connections of 110mm dia uPVC pipes, complete with inspection eyes</u></b>			
9	110mm Diameter	No	15	
10	160mm Diameter	No	10	
	<b><u>Inspection eyes complete</u></b>			
11	110mm Diameter	No	15	
	<b><u>MANHOLES, INSPECTION CHAMBERS, ETC</u></b>			
	<b><u>8.2.3 Manholes (see drawing No 20793-120) excluding manhole covers</u></b>			
12	1000mm Diameter manhole not exceeding 1,5m deep	No	2	
13	1000mm Diameter manhole exceeding 1,5 and not exceeding 2m deep	No	5	
14	1000mm Diameter manhole exceeding 2m deep	No	5	
15	1250mm Diameter manhole not exceeding 1,5m deep	No	5	
16	1250mm Diameter manhole exceeding 1,5 and not exceeding 2m deep	No	3	
17	1250mm Diameter manhole exceeding 2m deep	No	2	
	<b><u>Manhole covers</u></b>			
18	560mm B125	No	4	
19	560mm C250	No	3	
20	560mm D400	No	3	
	<b><u>CONNECTIONS, ETC</u></b>			
	<b><u>8.2.11 Connecting to existing sewer at</u></b>			
21	Existing manhole on 160mm diameter sewer line	No	1	
	<b>Carried Forward</b>			R
	Bill No. 5 Plumbing and drainage			

<b>Brought Forward</b>			R
22	Existing manhole on 375mm diameter sewer line	No	1
<b><u>CLEANING OF SEWERAGE RETICULATIONS</u></b>			
<b><u>PLD 8.2.14 Mechanical cleaning of sewer pipes and structures</u></b>			
23	Up to 200mm diameter	m	350
24	Exceeding 200 and up to 375mm diameter	m	350
<b><u>PLD 8.2.15 CCTV inspection of sewer pipes</u></b>			
25	Up to 200mm diameter	m	350
26	Exceeding 200 and up to 375mm diameter	m	350
<b><u>SANS 1200 LB - BEDDING (PIPE)</u></b>			
<b><u>Provision of bedding from trench excavation</u></b>			
27	Selected granular material	m3	500
28	Selected fill material	m3	300
<b><u>Supply only of bedding by importation from commercial sources</u></b>			
29	Selected granular material	m3	100
30	Selected fill material	m3	50
<b><u>STORMWATER DRAINAGE</u></b>			
<b><u>COLTO ITEM 17.00 - CLEARING AND GRUBBING</u></b>			
31	COLTO ITEM 17.01 Clearing and grubbing	ha	0.2
32	COLTO ITEM 17.04 Clearing and grubbing at inlets and outlets of hydraulic structures	m2	1 300
<b><u>COLTO ITEM 17.05 Cleaning out of hydraulic structures</u></b>			
33	COLTO ITEM 17.05 (c) Box culverts up to and including 1,5m vertical dimension	m3	150
<b>Carried Forward</b>			R
Bill No. 5 Plumbing and drainage			

Brought Forward			R
34	Excavation in earth not exceeding 2m deep for open drains	m3	3 000
<b><u>COLTO ITEM 21.00 - DRAINS</u></b>			
35	Excavation in earth exceeding 2 and not exceeding 4m deep for open drains	m3	600
<b><u>COLTO ITEM 21.01 Excavation for open drains</u></b>			
36	Extra over excavation in earth for open drains for excavation in soft rock	m3	300
<b><u>COLTO ITEM 21.01 (a) Excavating soft material situated within the following depths below the surface level</u></b>			
37	COLTO ITEM 21.01 (i) Up to 1.5m	m3	3 500
38	COLTO ITEM 21.01 (ii) Exceeding 1.5 and up to 3.0m	m3	700
39	COLTO ITEM 21.01 (b) Extra over subitem 22.01 (a) for excavation in hard material	m3	150
<b><u>COLTO ITEM 21.18 Excavation for the clearing of existing drainage systems</u></b>			
40	COLTO ITEM 21.18 (b) Culvert barrels	m3	100
41	COLTO ITEM 21.19 Selected backfill material under concrete lined side drains	m3	560
<b><u>COLTO ITEM 22.00 - PREFABRICATED CULVERTS</u></b>			
<b><u>COLTO ITEM B22.01 Excavation</u></b>			
<b><u>COLTO ITEM B22.01 (a) Excavating soft material situated with the following depths</u></b>			
42	COLTO ITEM B22.01 (i) Up to 1.5m	m3	100
43	COLTO ITEM B22.01 (ii) Exceeding 1.5 and up to 3.0m	m3	1 000
44	COLTO ITEM B22.01 (a) Extra over subitem 22.01 (a) for excavation in hard material	m3	300
Carried Forward			R

Bill No. 5  
Plumbing and drainage

<b>Brought Forward</b>			R
45	COLTO ITEM B22.01 (c) Extra over subitem 22.01(a) for excavation by hand as instructed by the principal agent	m3	100
<b><u>COLTO ITEM 22.02 Backfilling</u></b>			
46	COLTO ITEM 22.02 (a) Using the excavated material	m3	200
47	COLTO ITEM 22.02 (b) Using imported selected material	m3	60
<b><u>COLTO ITEM 22.03 Concrete pipe culverts</u></b>			
<b><u>COLTO ITEM 22.03 (b) On class B bedding</u></b>			
48	COLTO ITEM 22.03 (iii) 600mm Diameter	m	150
49	COLTO ITEM 22.03 (v) 900mm Diameter	m	60
<b><u>COLTO ITEM 22.04 Metal and non-metal culverts</u></b>			
<b><u>COLTO ITEM 22.04 (b) Cutting off bevelled or skew end of culvert</u></b>			
50	COLTO ITEM 22.04 (b) (ii) 600mm Diameter	No	1
51	COLTO ITEM 22.04 (b) (iii) 900mm Diameter	m	1
<b><u>COLTO ITEM 22.05 Portal and rectangular culverts</u></b>			
<b><u>COLTO ITEM 22.05 (a) Complete with prefabricated floor slab</u></b>			
52	COLTO ITEM 22.05 (a) (i) Culvert size 1200 x 900mm high	m	60
53	COLTO ITEM 22.05 (a) (ii) Culvert size 1200 x 1200mm high	m	20
54	COLTO ITEM 22.05 (b) (iii) Culvert size 1800 x 1200mm high	m	70
<b><u>COLTO ITEM 22.07 Cast in-situ concrete</u></b>			
55	COLTO ITEM 22.07 (b) Formwork, joints and class U2 surface finish Class 25/19	m3	50
<b>Carried Forward</b>			R
Bill No. 5 Plumbing and drainage			



Brought Forward			R
56	COLTO ITEM 22.07 (c) Manholes, class U2 surface finish, Class 25/19	m3	15
57	COLTO ITEM 22.07 (d) Formwork of concrete under subitem 22.07 (C) above U2	m2	20
58	COLTO ITEM 22.08 Concrete backfill for culverts	m3	70
<b><u>COLTO ITEM 22.10 Steel reinforcement</u></b>			
59	COLTO ITEM 22.10 (c) Welded fabric	kg	1 200
<b><u>COLTO ITEM 22.17 Manholes, catch pits, inlet and outlet structures</u></b>			
<b><u>COLTO ITEM 22.17 (a) Manholes</u></b>			
Tenderers are referred to the Engineer's detail drawings before pricing these items, to see the full extent and details of the work			
<b><u>COLTO ITEM 22.17 (a) (iii) Brick manholes for drainage constructed on all pipes up to and including inspection chambers as per drawing No GSC-WSP-SITE-DR-FE-FE00</u></b>			
60	(2) 1.0 to 1.5m Deep	No	10
<b><u>COLTO ITEM 22.17 (a) (vi) Brick manholes for drainage constructed on 900mm diameter pipes</u></b>			
61	(3) 1.5 to 2mm Deep	No	2
<b><u>COLTO ITEM 22.18 Brickwork</u></b>			
62	COLTO ITEM 22.18 (b) 230mm Thick	m2	940
63	COLTO ITEM 22.20 Benching	m2	32
<b><u>COLTO ITEM 22.21 Accessories</u></b>			
<b><u>COLTO ITEM 22.21 (a) Manhole covers including frames</u></b>			
<b><u>See drawings No 20793-113 and GSC-SITE-DR-FE-FE00</u></b>			

Carried Forward

R

Bill No. 5  
Plumbing and drainage

Brought Forward			R
<b><u>COLTO ITEM 22.27 Reinstating of trenches crossing roads</u></b>			
64	COLTO ITEM 22.27 (a) Selected layers	m2	100
65	COLTO ITEM 22.27 (b) Subbase	m2	100
66	COLTO ITEM 22.27 (c) Base (including prime coat)	m2	100
67	COLTO ITEM 22.27 (d) Bituminous surfacing (including tack coat)	m2	100
68	COLTO ITEM 22.27 (e) Kerbing	m	20
69	COLTO ITEM B22.29 Breaking into existing drainage structures and building in following size - 1200 x 1200mm	No	2
<b><u>COLTO ITEM 23.00 - CONCRETE KERBING, CONCRETE CHANNELLING, CHUTES AND DOWNPIPES, AND CONCRETE LININGS FOR OPEN DRAINS</u></b>			
<b><u>COLTO ITEM 23.07 Trimming of excavations for concrete open-lined drains</u></b>			
70	COLTO ITEM 23.07 (a) In soft material	m2	2 300
71	COLTO ITEM 23.07 (b) In hard material	m2	500
<b><u>COLTO ITEM 23.08 Concrete lining for open drains</u></b>			
72	COLTO ITEM 23.08 (a) Cast in-situ concrete lining Class 25/19 150mm depth. See drawing Nos 20793-101, 20793-102, 20793-110 and 20793-111	m3	460
73	COLTO ITEM 23.08 (b) Class U2 surface finish to cast in-situ concrete	m2	2 700
<b><u>COLTO ITEM 23.09 Formwork to cast in-situ concrete lining for open drains</u></b>			
74	COLTO ITEM 23.09 (a) To sides with formwork on the internal face only	m2	210
75	COLTO ITEM 23.09 (c) To ends of slabs	m2	150
Carried Forward			R
Bill No. 5 Plumbing and drainage			

<b>Brought Forward</b>			R
<b><u>COLTO ITEM 23.12 Steel reinforcement</u></b>			
76	COLTO ITEM 23.12 (c) Welded steel fabric	kg	9 800
77	COLTO ITEM 23.13 Polyethylene sheeting (0.15mm thick) for concrete-lined open drain	m2	360
<b><u>COLTO ITEM 52.00 GABIONS</u></b>			
78	COLTO ITEM 52.02 Surface preparation for bedding the gabions	m2	100
<b><u>COLTO ITEM 52.03 Gabions</u></b>			
<b><u>COLTO ITEM 52.03 (c) Galvanised gabion mattresses</u></b>			
<b><u>COLTO ITEM 52.03 (2) 0.6m Diaphragm spacing, 0.6m long x 2.0m wide</u></b>			
79	COLTO ITEM 52.03 (c) (ii) By 0.3m deep mesh	m3	30
80	COLTO ITEM 52.04 Filter fabric	m2	100
<b><u>WATER RETICULATION</u></b>			
<b><u>SANS 1200 DB - EARTHWORKS (PIPE TRENCHES)</u></b>			
<b><u>8.3.2 (a) Excavate in all materials for trenches, backfill, compact and dispose of surplus material</u></b>			
<b><u>Pipes up to 700mm dia for depths</u></b>			
81	Up to 1,0m	m3	1 000
82	Over 1,0m to 2m	m3	120
<b><u>8.3.2 (b) Extra over item 8.3.2 (a) above for</u></b>			
83	Hard rock excavation	m3	20
84	8.3.2 (c) Excavation and disposal of unsuitable material form trench bottom	m3	75
<b>Carried Forward</b>			R
Bill No. 5 Plumbing and drainage			

Brought Forward				R
<b><u>Excavation ancillaries</u></b>				
85	8.3.3.3 Compaction in road reserves	m3	560	
<b><u>SANS 1200L - Medium pressure pipe lines</u></b>				
<b><u>8.2.1 Supply, lay and bed pipes complete with couplings</u></b>				
86	50mm HDPE pipe (PE 100 PN12.5)	m	160	
87	63mm HDPE pipe (PE 100 PN12.5)	m	60	
88	75mm HDPE pipe (PE 100 PN12.5)	m	60	
89	80mm HDPE pipe (PE 100 PN12.5)	m	90	
90	90mm HDPE pipe (PE 100 PN12.5)	m	60	
91	110mm HDPE pipe (PE 100 PN12.5)	m	1 150	
92	110mm uPVC (Class 12)	m	80	
93	160mm HDPE pipe (PE 100 PN12.5)	m	120	
94	160mm uPVC (Class 12)	m	80	
<b><u>8.2.2 Extra over item 8.2.1 for the supplying, laying and bedding of specials complete with couplings</u></b>				
<b><u>T-pieces</u></b>				
95	Equal (90 x 90) HDPE (PE100 PN12.5)	No	1	
96	Equal (75 x 75) HDPE (PE100 PN12.5)	No	1	
97	Equal (63 x 63) HDPE (PE100 PN12.5)	No	1	
98	Equal (50 x 50) HDPE (PE100 PN12.5)	No	1	
99	Equal (110 x 110) HDPE (PE100 PN12.5)	No	4	
100	Equal (160 x 160) HDPE (PE100 PN12.5)	No	2	
101	Reducing (90 x 75) HDPE (PE100 PN12.5)	No	1	
<b>Carried Forward</b>				R
Bill No. 5 Plumbing and drainage				

<b>Brought Forward</b>				R
102	Reducing (75 x 63) HDPE (PE100 PN12.5)	No	1	
103	Reducing (63 x 50) HDPE (PE100 PN12.5)	No	1	
104	Reducing (110 x 50) HDPE (PE100 PN12.5)	No	3	
<b><u>Hydrant T-pieces for</u></b>				
105	Reducing (110 x 80) HDPE (PE100 PN12.5)	No	11	
<b><u>Reducer</u></b>				
106	Reducing (110 x 80) HDPE (PE100 PN12.5)	No	1	
<b><u>90° Bends</u></b>				
107	50 Dia HDPE (PE100 PN12.5)	No	2	
108	63 Dia HDPE (PE100 PN12.5)	No	2	
109	75 Dia HDPE (PE100 PN12.5)	No	2	
110	80 Dia HDPE (PE100 PN12.5)	No	12	
111	90 Dia HDPE (PE100 PN12.5)	No	2	
112	110 Dia HDPE (PE100 PN12.5)	No	4	
113	110 Dia uPVC (Class 12)	No	2	
114	160 Dia HDPE (PE100 PN12.5)	No	4	
115	160 Dia uPVC (Class 12)	No	2	
<b><u>VALVES, ETC</u></b>				
<b><u>8.2.3 Extra over item 8.2.1 for supplying, fixing and bedding of valves</u></b>				
<b><u>Flanged, resilient seal gate valves with flange adaptors on either side, complete with washers, bolts, nuts and gaskets (PN16)</u></b>				
116	DN80 Valve	No	1	
117	DN100 Valve	No	1	
<b>Carried Forward</b>				R
Bill No. 5 Plumbing and drainage				

Brought Forward				R
118	DN150 Valve	No	1	
	<b><u>Stainless steel ball valves</u></b>			
119	DN50 Valve	No	1	
	<b><u>8.2.11 Anchor/Thrust blocks and pedestals as per drawing No FP18</u></b>			
120	25/19 Concrete	m3	1	
121	Formwork	m2	30	
	<b><u>8.2.13 Valve and hydrant chambers, etc</u></b>			
122	470 x 350mm Precast concrete valvebox (Salberg or equivalent)	No	3	
123	PSL 8.2.16 Supply and install fire hydrant complete as per drawing No FP18. Description "Ø100 Pillar type fire hydrant with Stortz coupling" excluding Hydrant T-piece	No	11	
	<b><u>8.2.17 Connection to existing water main complete with all fittings as per drawing No GSC-WSP-SITE-DR-FE-FE00</u></b>			
124	160mm Diameter	No	1	
125	PSL 8.2.18 Hydraulic field-testing of pipelines irrespective of type or class	m	1 780	
	<b><u>PSL 8.2.19 Cutting, preparation and butt welding/electrufusion of joints in pipeline</u></b>			
126	80mm HDPE pipe (PE100 PN12.5)	No	30	
127	90mm HDPE pipe (PE100 PN12.5)	No	10	
128	110mm HDPE pipe (PE100 PN12.5)	No	100	
129	160mm HDPE pipe (PE100 PN12.5)	No	30	
	<b><u>SANS 1200LB - BEDDING (PIPE)</u></b>			
	<b><u>Provision of bedding from trench excavation</u></b>			
130	Selected granular material	m3	120	
	Carried Forward			R
	Bill No. 5 Plumbing and drainage			

Brought Forward				R
131	Selected fill material	m3	460	
<b><u>SANS 1200 LF - ERF CONNECTION (WATER)</u></b>				
<b><u>8.2.2 Supply, lay and test erf connections</u></b>				
132	160mm uPVC (Class 12)	m	5	
<b><u>8.2.3 Extra over item 8.2.2 for specials</u></b>				
<b><u>Item 2</u></b>				
133	150mm Dia Flanged isolating valve	No	5	
<b><u>Item 5</u></b>				
134	100mm Dia Pillar type hydrant with Stortz coupling	No	2	
<b><u>Item 6</u></b>				
135	150mm Dia Flanged non-return valve	No	2	
<b><u>Item 7</u></b>				
136	150mm Dia Twin booster connection with 2500kPa pressure gauge	No	1	
<b><u>Item 10</u></b>				
137	150mm Dia Flanged strainer	No	1	
<b><u>8.2.4 Supply and install meters complete with couplings</u></b>				
138	150mm Diameter	No	1	
<b>Carried to Summary</b>				R
Bill No. 5 Plumbing and drainage				

Item No	Quantity	Rate	Amount
<p><b><u>BILL NO 6</u></b></p>			
<p><b><u>ROADS AND PARKING</u></b></p>			
<p>The document "Standard Specifications for Roads and Bridge Works for State Authorities" as prepared and drafted by COLTO (Committee of Land Transport Officials) date 3 March 1998, although not included, shall be deemed to form part of these Bills of Quantities. Tenderers shall acquaint themselves with the content of this document, as no claims in this regard will be entertained</p>			
<p>Deviations, omissions or additions to this document are listed in the document "COLTO Series 1000 - General, Section B1200 - General Requirements and Provisions" in the back of these Bills of Quantities and must be read together with the descriptions in these Bills of Quantities</p>			
<p>Tenderers must ensure that this document is included with the Bills of Quantities</p>			
<p>The items in this Bill of Quantities are measured in accordance with the COLTO document and may differ from the Standard System of Measuring Building Work in South Africa</p>			
<p>Where a unit is described as "RO", it is a "rate only" item and no quantity is measured against the item, however the rate shall be inserted</p>			
<p>Where a unit is described as "MD", it is "man day"</p>			
<p><b><u>Construction of Entrances to the Shopping Centre</u></b></p>			
<p>The construction of all the civil works to the shopping centre entrances has been measured out in full herein (the bill of quantities). This work may be omitted in part or in full or deferred and tenderers must make provision for this as no additional claim in this regard will be entertained</p>			
<p><b>Carried Forward</b></p>			
<p>Bill No. 6 Roads and parking</p>		R	



Brought Forward			R
<b><u>SECTION 1200: CONTRACTOR'S GENERAL REQUIREMENTS AND CONDITIONS</u></b>			
1	12.01 Allow for the installation of LED technology traffic signals		
		Item	
<b><u>SECTION 1500: ACCOMMODATION OF TRAFFIC</u></b>			
<b><u>COLTO ITEM 15.01 Accommodating traffic and maintaining temporary deviations</u></b>			
2	15.01 (a) On the route	km	1
3	15.01 (b) On the cross roads	km	1
<b><u>COLTO ITEM 15.03 Temporary traffic control facilities</u></b>			
4	15.03 (a) Flag-men	MD	150
5	15.03 (b) Amber flicker lights	No	2
<b><u>COLTO ITEM 15.03 (e) Road signs - R and TR series</u></b>			
6	15.03 (i) 1200mm Diameter	No	10
<b><u>COLTO ITEM 15.03 (g) Road signs - TW series with distance board</u></b>			
7	15.03 (i) 1500mm Diameter	RO	Rate only
8	<b><u>15.03 (g) Road signs, STW-, DTG-, TGS- and TG-series (excluding delineators and barricades)</u></b>	m2	10
<b><u>COLTO ITEM 15.03 (h) Delineators (TW401, TW402)</u></b>			
9	15.03 (i) Single, size 800 x 200mm	No	100
10	15.03 (i) Movable barricade/road sign combination	No	2
11	15.03 (m) Two-way communication device	No	2
<b>Carried Forward</b>			R
Bill No. 6 Roads and parking			

Brought Forward				R
<b><u>COLTO ITEM 15.14 Provision of traffic safety equipment for use by the Principal Agent</u></b>				
12	15.14 (a) Safety jacket	No	4	
13	15.14 (b) Safety hat	No	4	
14	15.14 (c) Traffic safety officer	Month	2	
<b><u>SECTION 1700: CLEARING AND GRUBBING</u></b>				
15	COLTO ITEM 17.01 Clearing and grubbing	ha	2	
<b><u>COLTO ITEM 17.02 Removal and grubbing of large trees</u></b>				
16	17.02 (a) Girth exceeding 1m up to and including 2m	No	20	
17	17.02 (b) Girth exceeding 2m up to and including 3m	No	10	
<b><u>COLTO ITEM B17.07 Removal and temporary stockpiling of topsoil</u></b>				
18	B17.07 (a) In wind rows alongside the work area	m3	500	
19	B17.07 (b) In temporary stockpiles on site	m3	2 000	
<b><u>SECTION 2300: CONCRETE KERBING, CHANNELLING, SHUTES AND DOWN PIPES AND LININGS FOR OPEN DRAINS</u></b>				
<b><u>COLTO ITEM B23.01 Precast concrete kerbs</u></b>				
20	B23.01 (a) Figure 3 mountable kerb with 25MPa x 19mm stone concrete joint backing (see drawing No 20793-071)	m	5 500	
<b><u>SECTION 3300: MASS EARTHWORKS</u></b>				
<b><u>COLTO ITEM 33.01 Cut and borrow to fill, including free haul up to 0.5km</u></b>				
<b><u>Material in compacted layer thicknesses not exceeding 200mm</u></b>				
21	33.01 (i) Compacted in 150mm layers to 93% mod AASHTO density	m3	21 500	
Carried Forward				R
Bill No. 6 Roads and parking				

Brought Forward				R
<b><u>COLTO ITEM 33.03 Extra over item 33.01 for excavating and breaking down material in</u></b>				
22	33.03 (b) Hard excavation	m3	5 000	
23	33.03 (d) Boulder excavation class B	m3	1 500	
<b><u>COLTO ITEM 33.04 Cut to spoil, including free haul up to 0.5km, material obtained from</u></b>				
24	33.04 (a) Soft excavation	m3	30 100	
25	33.04 (b) Intermediate excavation	m3	28 000	
26	33.04 (c) Hard excavation	m3	10 500	
27	(33.04 (d) Boulder excavation class A	m3	3 500	
<b><u>COLTO ITEM 33.06 Variations in the number of roller passes (applicable to subsubitems 33.01(a)(iii) and 33.01(b)(iii) and item 33.11)</u></b>				
28	33.06 (a) Vibratory rollers - m <sup>2</sup> -pass	RO		Rate only
29	33.06 (f) Pneumatic tyred rollers m <sup>2</sup> -pass	RO		Rate only
<b><u>COLTO ITEM 33.07 Removal of unsuitable material (including free haul of 0.5km)</u></b>				
<b><u>COLTO ITEM 33.07 (a) In layer thicknesses of 200mm and less</u></b>				
30	33.07 (a)(ii) Unstable material	m3	3 000	
<b><u>COLTO ITEM 33.07 (b) In layer thicknesses exceeding 200mm</u></b>				
31	33.07 ((b)(ii) Unstable material	m3	3 000	
<b><u>COLTO ITEM B33.1 Roadbed preparation and compaction of material</u></b>				
32	B33.1 (a) Compaction to 93% of modified AASHTO density	m3	16 620	
33	B33.1 (b) Extra over for restricted areas	m3	1 000	
Carried Forward				R
Bill No. 6 Roads and parking				

Brought Forward			R
<b><u>COLTO ITEM B33.11 Three-roller-passes compaction</u></b>			
34	33.11 (a) Vibratory roller	m2	55 400
35	B33.11 (i) Extra over for restricted areas	m2	1 000
36	B33.11 (f) Pneumatic-tyred roller	m2	55 400
37	B33.11 (i) Extra over for restricted areas	m2	1 000
<b><u>COLTO ITEM 33.12 In-situ treatment of roadbed</u></b>			
38	33.12 (a) In-situ treatment by ripping	m3	55 400
39	33.12 (b) In-situ treatment by blasting	m3	11 080
<b><u>COLTO ITEM 33.13 Finishing-off cut-and-fill slopes, medians and interchange areas</u></b>			
40	33.13 (a) Cut slopes	m2	2 000
41	33.13 (b) Fill slopes	m2	4 000
<b><u>COLTO ITEM 33.14 Extra over item 33.01 for excavating materials from the pavements and fills of existing roads</u></b>			
42	33.14 (a) Non-cemented material	m3	31 700
43	33.15 Extra over item 33.14 for excavating in pavements and fills of existing roads in restricted areas	m3	6 400
<b><u>COLTO ITEM B33.2 Fill constructed from material obtained from commercial sources provided by the contractor, including all haul</u></b>			
<b><u>COLTO ITEM B 33.20 (a) Gravel material (min G8) in compacted layer thicknesses not exceeding 200mm</u></b>			
44	B33.20 (i) Compacted to 93% of modified AASHTO density in 150mm layers	m3	7 500
Carried Forward			R
Bill No. 6 Roads and parking			

Brought Forward			R
<b><u>COLTO ITEM B33.21 Fill constructed with material obtained from temporary (not designated) stockpiles or directly from existing pavement layers and existing road prisms, irrespective of material type, including all haul</u></b>			
<b><u>COLTO ITEM B33.21 (a) Gravel material (min G8) in compacted layer thicknesses not exceeding 200mm</u></b>			
45	B33.21 (i) Compacted to 93% of modified AASHTO density in 150mm layers	m3	13 000
46	B33/32.06 Stockpiling of material	m3	34 400
<b><u>COLTO ITEM B33/B34.15 Supply and install soil reinforcement using geocomposites</u></b>			
47	B33/B34.15 (a) TriaAx TX 160 geogrid (or similar)	m2	55 400
48	B33/B34.15 (b) Grade A3 bidim (or similar)	m2	55 400
<b><u>COLTO ITEM 56.00 SECTION 5600: ROAD SIGNS</u></b>			
<b><u>COLTO ITEM B56.01 Road sign boards with painted or coloured semi-mat background. Symbols, lettering and borders in semi-mat black or in class 1 retro-reflective material where the signboard is constructed from</u></b>			
49	B56.01 (a) 2mm Thick aluminium sheet not exceeding 2m <sup>2</sup> in area	m2	1
50	B56.01 (ii) 2mm Thick aluminium sheet exceeding 2 and not exceeding 10m <sup>2</sup> in area	m2	20
<b><u>COLTO ITEM 56.03 Road sign supports (overhead road sign structures excluded)</u></b>			
51	56.03 (a) Steel tubing	t	1.00
52	56.05 Excavation and backfilling for road sign supports	m3	2
53	56.06 Extra over item 56.05 for cement-treated soil backfill	m3	1
54	56.07 Extra over item 56.05 for rock excavation	m3	1
<b>Carried Forward</b>			R
Bill No. 6 Roads and parking			

Brought Forward			R
<b><u>COLTO ITEM 34.00 SECTION 3400: PAVEMENT LAYERS OF GRAVEL MATERIAL</u></b>			
<b><u>B34.14 Pavement layers constructed from commercial sources or approved sources provided by the contractor, including all haul</u></b>			
<b><u>B 34.14 (A) Gravel selected layer (G7) compacted to</u></b>			
55	<b><u>B34.14 (a) (ii) 95% Of modified AASHTO density for a compacted layer thickness of 600mm (constructed 150mm lifts)</u></b>	m3	33 300
<b><u>B34.14 (b) Gravel subbase of chemically stabilised material in compacted to</u></b>			
<b><u>B34.14 (d) (ii) 97% Of modified AASHTO density for a compacted layer thickness of 150mm</u></b>			
56	B34.14 (d) (ii) (1) C3 Subbase stabilised layer of G5 parent material	m3	3 200
57	B34.14 (d) (ii) (2) C4 Subbase stabilised layer of G6 parent material	m3	4 600
<b><u>B34.14 (d) (iv) 97% Of modifies AASHTO density for a compacted layer thickness of 125mm</u></b>			
58	B34.14 (d) (iv) (1) C4 Subbase stabilised layer of G6 parent material	m3	500
<b><u>COLTO ITEM 35.00 SECTION 3500: STABILISATION</u></b>			
<b><u>B35.01 Chemical stabilisation extra over non-stabilised compacted layers</u></b>			
<b><u>B35.01 (c) Gravel subbase</u></b>			
59	B35.01 (c) (i) Subbase layer (97% Mod AASHTO density) extra over subitem B31.14(d)(ii)(1), 150mm thickness	m3	3 200
60	B35.01 (c) (ii) Subbase layer (97% Mod AASHTO density) extra over subitem B31.14(d)(ii)(2), 150mm thickness	m3	4 600
Carried Forward			R
Bill No. 6 Roads and parking			

<b>Brought Forward</b>			R
61	B35.01 (c) (iii) Subbase layer (97% Mod AASHTO density) extra over subitem B31.14(d)(iv)(1), 150mm thickness	m3	
<b><u>B35.02 Chemical stabilising agent</u></b>			
62	B35.02 (a) CEM II 32.5N	t	600.00
63	B35.02 (c) Road lime	RO	<b>Rate only</b>
64	B35.04 Provision and application of water for curing	kl	1 500
65	B35.05 Curing by covering with the subsequent layer	m2	55 400
<b><u>B35.10 Extra over item 35.01 for working in restricted areas</u></b>			
66	B35.10 (b) In-situ mixing	m3	1 000
67	B35.10 (c) Mixing as for in-situ mixing, but on adjacent surfaces	m3	400
<b><u>B35.13 Extra over items 35.01 and 35.07 for trial sections</u></b>			
68	B35.13 (a) Stabilised selected layer	m3	500
69	B35.13 (b) Stabilised subbase layer	m3	500
<b><u>COLTO ITE 36.00 SECTION 3600: CRUSHED STONE BASE</u></b>			
<b><u>B36.01 Crushed-stone base</u></b>			
<b><u>B36.01 (e) Constructed from type G3 natural material obtained from commercial sources (nominal maximum size of 37.5mm) and compacted to</u></b>			
70	B36.01 (e)(ii) 100% Of modified AASHTO density, 150mm thicklayer	m3	4 100
71	B36.03 Crushed-stone base trial section 150mm constructed in accordance with the provisions of Clause 3603	m3	500
<b>Carried Forward</b>			R
Bill No. 6 Roads and parking			

Brought Forward				R
<b><u>COLTO ITEM B38.00 SECTION 3800: BREAKING UP EXISTING PAVEMENT LAYERS</u></b>				
<b><u>B38.01 Excavating and removing existing bituminous material (except milled material)</u></b>				
<b><u>B38.01 (a) Material intended for recycling with the average depth of excavation</u></b>				
72	B38.01 (a)(ii) Exceeding 30 and not exceeding 60mm a	m2	1 360	
73	B38.01 (a)(iii) Exceeding 60mm	m2	1 360	
<b><u>B38.10 (b) Material to be disposed of with the average depth of excavation</u></b>				
74	B38.01 (b)(ii) Exceeding 30 and not exceeding 60mm average thickness	m2	2 000	
<b><u>B38.02 Milling out existing bituminous material with and average milling depth</u></b>				
75	B38.02 (b) Exceeding 30 and not exceeding 60mm	m3	1 360	
76	B38.02 (c) Exceeding 60mm	m3	1 360	
<b><u>B38.04 Excavating and spoiling material from an existing pavement and/or underlying fill</u></b>				
77	B38.04 (a) Non-cemented material	m3	4 200	
<b><u>B38.05 Excavating material from an existing pavement and/or underlying fill in restricted areas</u></b>				
78	B38.05 (a) Extra over item 38.01 for bituminous material excavated separately	m3	1 000	
<b><u>B38.05 (b) Extra over item 38.04 for other existing pavement and/or fill material</u></b>				
79	B38.05 (b)(i) Non-cemented material	m3	300	
<b><u>B38.06 Extra over items 38.02 and 38.03 for milling in restricted widths of less than 1.0m</u></b>				
Carried Forward				R
Bill No. 6 Roads and parking				



<b>Brought Forward</b>			R
<b><u>B38.08 Sawing or cutting asphalt or cemented paveme</u></b>			
80	B38.08 (a) Sawing asphalt	m	3 000
81	B38.09 Removing the remaining asphalt from the underlying layer	m2	500
<b><u>COLTO ITEM B39.00 SECTION 3900: PATCHING AND REPAIRING EDGE BREAKS</u></b>			
<b><u>B39.02 Excavation in existing pavements for patching in</u></b>			
82	B39.02 (a) Asphalt layers	m3	50
83	B39.02 (c) Non-cemented layers	m3	150
<b><u>B39.03) Backfilling of excavations for patching with</u></b>			
<b><u>B39.03 (b) Base material stabilised with bituminous emulsion (G2 material stabilised with 2.5% emulsona and 2% cement) for a patch with a surface area</u></b>			
84	B39.03 (b)(i) Not exceeding 5m <sup>2</sup>	m2	750
85	B39.03 (b)(ii) Exceeding 5 and not exceeding 100m <sup>2</sup>	m2	750
86	B39.03 (b)(iii) Exceeding 100m <sup>2</sup>	m2	1 000
87	B39.04 Compacting the floor of excavations for patching	m2	500
<b><u>COLTO ITEM 41.00 SECTION 4100: PRIME COAT</u></b>			
<b><u>B41.01 Prime coat</u></b>			
88	B41.01 )c) MC-30 Cut-back bitumen (litres)	RO	<b>Rate only</b>
89	B41.01 (e) Invert bituminous emulsion (MSP1)	l	21 600
90	B41.01 (e) Aggregate for blinding	m2	1 100
<b>Carried Forward</b>			R
Bill No. 6 Roads and parking			

Brought Forward			R
91	B41.03 Extra over prime coat for applying to areas accessible to hand held tools only	l	2 200
<b><u>COLTO ITEM B42.00 SECTION 4200: ASPHALT BASE AND SURFACING</u></b>			
<b><u>B42.02 Asphalt surfacing (Level 1 PG58 - 22 S-60/70 pen bitumen)</u></b>			
<b><u>B42.02 (a) Continuously graded course graded</u></b>			
92	B42.02 (4) 40mm Thick	m2	32 400
93	B42.04 Tack coat of 30% stable-grade emulsion	l	19 440
<b><u>B42.05 Binder variations</u></b>			
94	B42.05 (a) 60/70 Pen grade bitumen	t	5.00
<b><u>B42.06 Variations in active filler content</u></b>			
95	B42.06 (a) Cement	t	0.50
96	B42.06 (b) Lime	t	0.10
<b><u>B42.07 Trial sections</u></b>			
97	B42.07 (b) 40mm Surfacing	m2	500
98	B52.08 100mm Cores in asphalt paving	RO	<b>Rate only</b>
99	B42.15 Application of prime coat and/or tack coat to the edges of a layer	l	2 000
<b><u>COLTO ITEM B48.00 SECTION 4800: TREATMENT OF EXISTING SURFACE EXHIBITING CERTAIN DEFECTS</u></b>			
<b><u>B48.06 Repairing edge breaks in surfacing</u></b>			
100	B48.05 (b) Reconstructing edges using medium continuously-graded asphalt	t	80.00
101	B48.06 Cleaning the cracks with compressed air	km	5
Carried Forward			R
Bill No. 6 Roads and parking			

Brought Forward				R
<b><u>B48.07 Applying bituminous binders and herbicides for sealing cracks</u></b>				
102	B48.07 (a) Herbicide	l	20	
103	B48.07 (b) MSP/1 or similar primer	l	20	
104	B48.07 (e) Other specified agents (sealing using class C-E1 modified binder crack sealant)	l	500	
<b><u>COLTO ITEM B57.00 SECTION 5700: ROAD MARKINGS</u></b>				
<b><u>B57.01 Road marking paint</u></b>				
<b><u>B57 .01 (a) White lines (broken or unbroken)</u></b>				
105	B57.01 (a)(1) 100mm Wide	km	10.5	
106	B57.01 (a)(2) 150mm Wide	km	1.5	
107	B57.01 (a)(4) 200mm Wide	km	0.5	
<b><u>B57.01 (b) Yellow lines (broken or unbroken)</u></b>				
108	B57.01 (b)(1) 150mm Wide	km	1.5	
109	B57.01 (b)(2) White lettering and symbols	m2	300	
110	B57.01 (b)(f) Transverse lines, painted island and arrestor bed markings (any colour)	m2	300	
<b><u>B57.05 Road studs</u></b>				
<b><u>B57.05 (c) Bi-directional (all colour combinations)</u></b>				
111	B57.05 (c)(1) Ferro Lynx steel body with shank (43 element glass reflective lens)	RO		Rate only
112	B57.06 Setting out and premarking the lines (excluding traffic island markings, lettering and symbols)	km	14	
<b><u>COLTO ITEM B59.00 SECTION 5900: FINISHING THE ROAD AND ROAD RESERVE</u></b>				
Carried Forward				R
Bill No. 6 Roads and parking				

Brought Forward			R
<b><u>B59.01 Finishing the road and road reserve</u></b>			
113	B59.01 (b) Single carriageway road	km	1
<b><u>COLTO ITEM B71.00 SECTION 7100: CONCRETE PAVEMENTS</u></b>			
<b><u>B71.02 Concrete pavement excluding texturing and curing</u></b>			
114	B71.02 (a) 170mm Thick dowel jointed concrete pavement (truck route) class 35/26.5	m2	17 500
115	B71.02 (b) 150mm Thick plain jointed concrete pavement (taxi rank) class 35/26.5	m2	3 750
116	B71.02 (c) 180mm Thick plain jointed concrete pavement (surface beds) class 42/37.5	m2	3 750
<b><u>B71.04 Texturing and curing the concrete pavement</u></b>			
117	B71.04 (a) Burlap-dragged and grooved texture	m2	21 300
118	B71.04 (b) Curing	m2	25 000
119	B71.05 Variation in the rate of application of the curing compound	RO	Rate only
<b><u>B71.06 Joints</u></b>			
120	B71.06 (a) Expansion joints complete (excluding dowels)	m	5 000
121	B71.06 (c) Sealed transverse contraction joints sawn in two separate operations	m	2 500
<b><u>B71.06 (d) Dowel bars (350mm long 25mm radius mild steel, placed at 300mm centres</u></b>			
122	B71.06 (d)(i) Installed in new concrete	No	5 000
<b><u>B71.06 (e) Tie bars (750mm long 16mm diameter mild steel)</u></b>			
123	B71.06 (e)(i) Installed in new concrete	No	5 000
124	B71.06 (f) End caps for dowels at expansion joints	No	2 500
<b>Carried Forward</b>			R
Bill No. 6 Roads and parking			

Brought Forward			R
125	B71.06 (g) Forming and sealing the joints between asphalt and concrete pavings	m	5 000
<b><u>B71.07 Drilling and testing of cores</u></b>			
126	B71.07 (a) 100mm Cores drilled from the pavement	No	20
<b><u>COLTO ITEM B73.00 SECTION 7300: CONCRETE BLOCK PAVING FOR ROADS</u></b>			
127	B73.01 Concrete block paving (25MPa, Type 5-A, 60mm)	m2	3 400
128	B73.02 Cast in-situ concrete edge and intermediate beams (Class 15/38)	m3	150
<b><u>B73.03 Provision of approved herbicide and ant poison</u></b>			
129	B73.03 (A) Provision of materials	Item	50 000,00
130	B73.03 (b) Contractor's charges and profit added to the prime cost sum	%	
<b><u>COLTO ITEM B81.00 SECTION 8100: TESTING MATERIALS AND WORKMANSHIP</u></b>			
<b><u>B81.02 Other special tests requested by the Principal Agent</u></b>			
131	B81.02 (a) Other special tests requested by the Principal Agent	Item	200 000,00
132	B81.02 (b) Profit and attendance	%	
<b>Carried to Summary</b>			R
Bill No. 6 Roads and parking			

Item No	<b><u>BILL NO 7</u></b>	Quantity	Rate	Amount
	<b><u>BUDGETARY ALLOWANCES AND PROVISIONAL SUMS</u></b>			
1	Allow the amount of R850 000.00 (eight hundred and fifty thousand Rands) for installation of traffic lights by the Tshwane City Council, which amount will be deducted in part or full if not utilised	Item		850 000.00
2	Allow the amount of R150 000.00 (one hundred and fifty thousand Rands) for relocation of electrical installation, to be executed by a specialist subcontractor, which amount will be deducted in part or in full if not utilised	Item		150 000.00
3	Allow the amount of R150 000.00 (one hundred and fifty thousand Rands) for relocation of Telkom installation, to be executed by a specialist subcontractor, which amount will be deducted in part or in full if not utilised	Item		150 000.00
4	Allow the amount of R5 250 000.00 (five million, two hundred and fifty thousand Rands) for Clearvu, or similar equivalent approved, fencing to be installed by a specialist subcontractor	Item		5 250 000.00
5	Allow for profit on the above if required	Item		
6	Allow for general attendance upon the specialist subcontractor installing the Clearvu fence	Item		
	<b>Carried to Summary</b>			
	Bill No. 7 Budgetary allowances and provisional sums		R	

